

OUR
20th YEAR

BADGER STATE

Smoke Signals

For Radio Amateurs • By Radio Amateurs

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Portage WI 53901

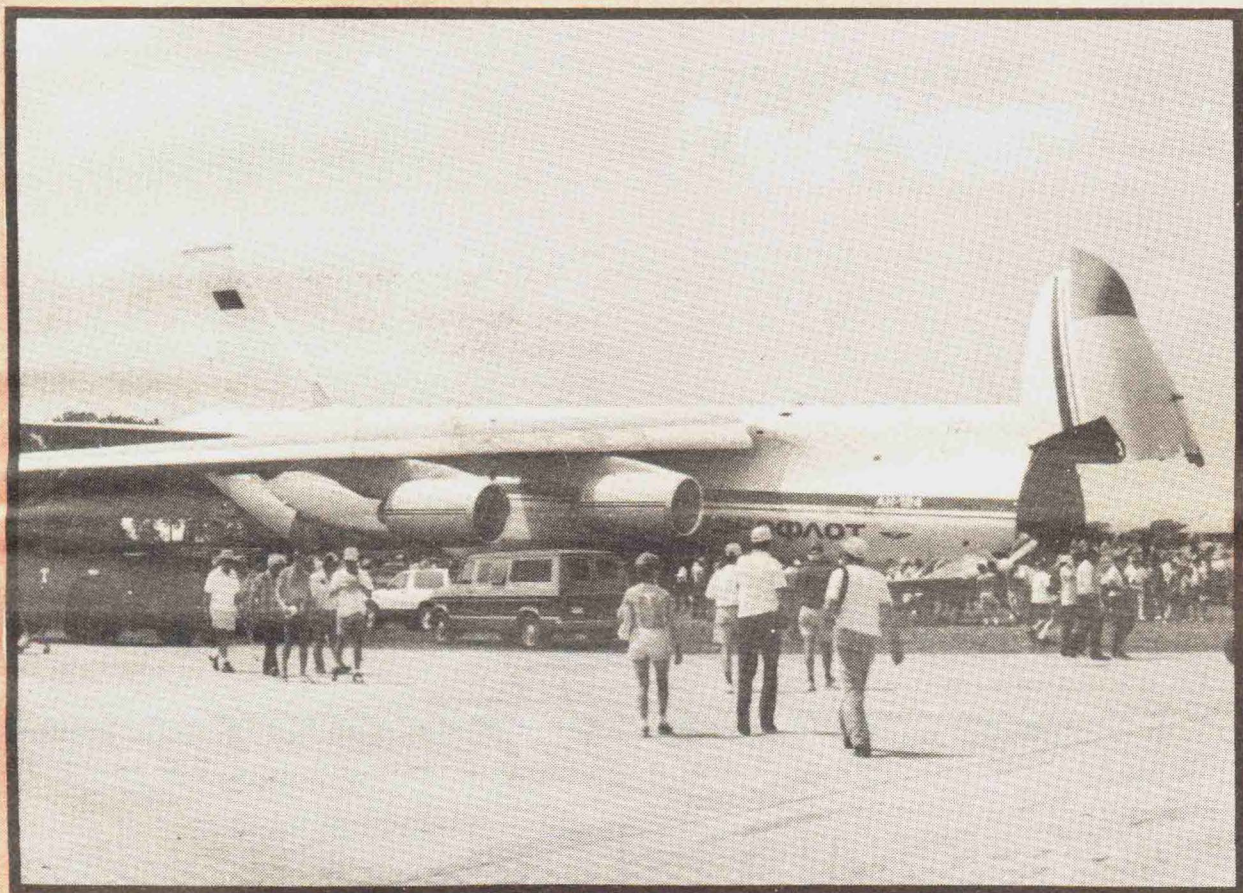
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Vol. 20 No. 10 - 238th Consecutive Monthly Issue - Baraboo, Wisconsin - October 1989

EAA Oshkosh 1989



The Experimental Aircraft Association Convention and Fly-In, held every year at Wittman Field in Oshkosh, Wisconsin, is the largest convention held anywhere in the world. Hundreds of experimental aircraft of all types are among the attractions, as are military aircraft, such as the Russian cargo plane pictured above. Many more hundreds of pilots fly to the convention in more conventional small aircraft; for one the week of the convention, Wittman Field is the busiest airport in the world. This year, Baraboo Amateur Don Evenson, K9JYX, dropped in to look at the aircraft, and to meet and write about the Radio Amateurs operating and visiting at the Oshkosh Amateur Radio Club station on the grounds. Read his story on page 8 of this issue. And, courtesy of Rich Regent, K9GDF, read about the special event station operated at the convention by the Fox Cities Amateur Radio Club, on page 15.

-Photo by Don Evenson, K9JYX

Congress Moves Ahead With License Fee Proposal

Your help is needed! See page 16.

ARRL Petitions for Codeless License

On August 31, 1989, the American Radio Relay League petitioned the Federal Communications Commission for a new "Communicator" class of Amateur Radio license which does not require a demonstration of proficiency in Morse code. This new class of license, if adopted by the FCC, would grant privileges on amateur frequencies above 220 MHz.

According to the League's proposal, transmitter peak envelope power (PEP) would be limited to 250 watts. Another provision of the League's proposal would be that a Communicator licensee could not be the control operator of a repeater or auxiliary station. Examinations would be administered through the Volunteer Examining Coordinator (VEC) system.

According to ARRL Executive Vice President David Sumner, K1ZZ, "It was a very difficult issue for the (ARRL) Board to deal with, because there were strongly-held views at opposite ends of the spectrum. There were a number of proposals for different things. We started out with

(Please turn to page 6)

ON THE INSIDE

Swapfests and other Social Events--	2
Club Meetings-----	2
The Test Point-----	3
Queen Mary Boots Out Hams-----	4
Wisconsin Nets Association Ltd.-----	4
Here and There-----	5
Riverland Amateur Radio Club-----	6
Editorial (Running off at the Keyboard)-----	6
EAA Oshkosh 1989-----	8
Eau Claire Amateur Radio Club-----	9
Ten Ways to Improve Your Sales at 'Fests-----	10
The Communicator-----	12
Repeater Profiles-----	13
New Products-----	14
EAA Station Makes 1064 Contacts---	15
The Wisconsin Packeteer-----	17
Yellow Thunder Amateur Radio Club--	19

ELMER

by Rich Regent, K9GDF



Swapfests and other Social Events

SUNDAY, OCTOBER 15, 1989. The 11th Annual Fall Ham & Computer Swapfest, Waukesha County Exposition Center Forum, Highways J and FT, Waukesha, WI., sponsored by the Kettle Moraine Radio Amateurs, Inc. Admission \$2.00/3.00, Tables \$4.00. Food and refreshments available. Amateur Exams conducted (see Testpoint). Contact: KMRA Swapfest, 313 Hillview Circle, Waukesha, WI 53188.

SATURDAY, OCTOBER 28, 1989. Hamfest Minnesota & Computer Expo. 9000 Brooklyn Blvd., North of I-694 & Hwy. 169, Brooklyn Park, MN. Double Decker Flea Market. Seminars: CW contest, Don Search, W3AZD, James Young, WB6FNI, ARRL Forum, packet radio, VE exams. Contact: Hamfest Minnesota & Computer Expo, Box 5598, Hopkins, MN 55343, or call (612) 474-1529.

SUNDAY, OCTOBER 29, 1989. Late Fall Hamfest, at Lake County Fairgrounds, Grayslake, IL. contact: CAP, 15220 West Redwood Lane, Libertyville, IL 60048.

SATURDAY, NOVEMBER 4, 1989. 6.91 Friendly Fest, Serb Hall, 51st St. & Oklahoma, Milwaukee, WI, 8:00 a.m. to 1:00 p.m. (sellers admitted at 7:00 a.m.). Tickets: \$4.00, 4 foot tables: \$5.00. \$1.00 off on each in advance with SASE before Oct. 29. Amateur Exams (see Testpoint). Contact: Milwaukee Repeater Club, P.O. Box 2123, Milwaukee, WI 53201.

SUNDAY, NOVEMBER 12, 1989. Rockford Hamfest 89 & Computer Fair, at Forest Hills Lodge, Junction of Illinois 173 and Forest Hills Road, Rockford IL. 8:00 a.m. to 3:00 p.m. Ground

or \$4.00 at door. For information contact Lonnie Miller (815) 623-7576. SASE for advance tickets to: Rockford Hamfest P.O. Box 10003, Rockford, IL 61131.

SUNDAY, MARCH 25, 1990. Lamarsfest at Grayslake, IL. Contact Lamars, Box 751, Libertyville, IL 60048.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas.

Send information on your event to Kenneth A. Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings

BADGER AMATEUR RADIO SOCIETY
(W9YT - UNIVERSITY OF WISCONSIN - MADISON)
Monthly while school in session - 2nd Wednesday - 7:30 p.m. - B-314, Electrical Engineering Building.

CENTRAL WISCONSIN RADIO AMATEURS, LTD.
(STEVENS POINT)
Second Wednesday.

EAU CLAIRE AMATEUR RADIO CLUB
2nd Tuesday - 7:30 p.m. - Parks and Recreation Bldg., Oxford and 1st Streets, Eau Claire. Hams, guests welcome. Travelers welcome on wide area club repeater K9UXP, 146.31/91.

FOUR LAKES AMATEUR RADIO CLUB (MADISON WI)
First and third Tuesdays - 7:30 p.m. - Red Cross Bldg., 4860 Sheboygan Ave.

FOX CITIES AMATEUR RADIO CLUB
Third Monday - 7:00 p.m. - Roosevelt Jr. High School, 318 E. Brewster St., Appleton. Info: (414) 735-6294.

GREATER MILWAUKEE DX ASSOCIATION
Fourth Monday of the month at 7:30 p.m. Contact Jerry Scherkenbach, N9AW, at (414) 481-8831 for meeting location.

GREEN BAY MIKE AND KEY CLUB
Second Thursday - Red Cross Bldg., corner Danz and Deckner, Green Bay.

GREEN FOX AMATEUR RADIO CLUB
Third Monday - 7:30 p.m. - Green Lake Town Hall, int. of county hwy. K and N.

KETTLE MORAINES RADIO AMATEURS
Second Friday, 7:30 p.m. at the Kettle Moraine High School, located near the intersection Hwys 18 & 83 in Wale, WI. Talk-in on 147.39 repeater.

LAKESHORE RPTR. ASSN.
Last Tuesday, Jan., Apr., Jul., & Oct., 7:30 p.m. Red Cross Bldg., 4521 Taylor Ave., Racine, WI.

MANITOWOC COUNTY RADIO AMATEURS
Directors Meeting: First Wednesday.
General meeting: Second Wednesday.
Both meetings held at 7:30 p.m. in the basement, Manitowoc City Hall, 817 Franklin St., Manitowoc.

MEMONONEE FALLS AMATEUR RADIO CLUB
Last Tuesday - Doors open 7:30 p.m., meeting begins 8:00 p.m. Security Savings and Loan, Menomonee Falls. Amateurs and guests welcome.

MILWAUKEE RADIO AMATEURS CLUB
Fourth Thursday - Wauwatosa Savings and Loan, 7500 W. State St. (November on the third Thursday. No meetings in July, August, and December.) Meetings begin at 7:00 p.m.

OZAUKEE RADIO CLUB
Second Wednesday - 7:30 p.m. - Saukville Community Center.

QCWA - WISCONSIN CHAPTER #55
Fall QCWA dinner meeting, Saturday, Oct. 7, 1989 at Weisgerber's Golden Mast Inn, Okauchee Lake, WI. For Information or Reservations Contact: Richard R. Regent, K9GDF, (414) 282-0312

QCWA - SOUTHEAST WISCONSIN CHAPTER #162
Meets third Monday monthly, 7:30 p.m., Around the Clock Restaurant, 3012 Rapids Drive, Racine.

RACINE MEGACYCLE CLUB
Second Monday, 7:30 p.m., Red Cross Bldg., 4521 Taylor Ave., Racine, WI

RIVERLAND AMATEUR RADIO CLUB
First Tuesday - 7:30 p.m. - Onalaska Community Center, Onalaska WI.

ROCK RIVER RADIO CLUB
First Tuesday - 7:30 p.m. CST, 8:00 p.m. CDT - Dodge County Sheriff's Dept., 141 N. Main, Juneau WI. ARES net - 146.64 MHz., Monday 7:30 p.m. CST, 8:30 p.m. CDT. 7277 KHz., Saturday 10:30 a.m.

BADGER STATE SMOKE SIGNALS

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SUBSCRIPTIONS

1 year	(12 issues)	\$8.50
2 years	(24 issues)	\$16.00
3 years	(36 issues)	\$23.00

ADDRESS CHANGES AND CORRECTIONS should be sent to Kenneth A. Ebner, address above.

EDITORIAL MATERIAL, PHOTOGRAPHS, FEATURE ARTICLES, AND EXCHANGE PAPERS should be sent to Jim Romelfanger, address above.

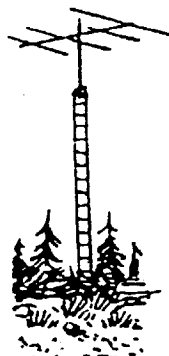
DISPLAY ADS or INQUIRIES REGARDING DISPLAY ADS may be directed to Harry Westlund or Kenneth Ebner, addresses above.

SUBSCRIPTIONS should be sent, with check or money order (do not send cash), to Jim Decker, address above.

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EDITORIAL DISCLAIMER

The opinions expressed in editorials, guest editorials, columns, articles, and letters are the opinions of the authors only, and do not, unless otherwise stated, express or imply agreement or endorsement by Badger State Smoke Signals, or by any other organization.



SHEBOYGAN COUNTY AMATEUR RADIO CLUB
Second Tuesday - 7:00 p.m. - Sheboygan Red Cross/Boy Scout Bldg., 2032 Erie Ave.

SOUTH MILWAUKEE AMATEUR RADIO CLUB
First Wednesday - Legion Post 434, Shepard Ave., Oak Creek WI. Auctions in March and October.

TAYLOR COUNTY AREA AMATEUR RADIO CLUB (TCAARC)
MEDFORD

Usually the 2nd Thursday of the month at 7:00 PM sharp. Usual location: emergency government meeting room, basement of Sheriff's Annex to Taylor County Courthouse, 2nd and Ogden Sts., Medford, WI. Talk-in on 147.75/15 or 145.27(-600) repeaters. Amateurs & guests are welcome. ARS Net, Wednesday nights at 8:30 PM on 147.75/15. For info call Mike, N9GHZ at (715) 223-3996.

TRI-COUNTY AMATEUR RADIO CLUB
Second Sunday of each month. Meetings are held at 7:00 p.m., at the Trinity Lutheran Church, 314 Barrie, Fort Atkinson, WI.

WASHINGTON COUNTY AMATEUR RADIO CLUB
Tuesday: ARES/RACES - 7:30 p.m., club meeting - 8:00 p.m., Town of Polk Town Hall, Hwy. 60 and Scenic Dr. Net on 146.13/73 every Monday 7:30 p.m.

WATERTOWN AMATEUR RADIO CLUB
First Thursday of the month at 7:00 p.m., Eaton Corp., 901 s. 12th St., Watertown, WI

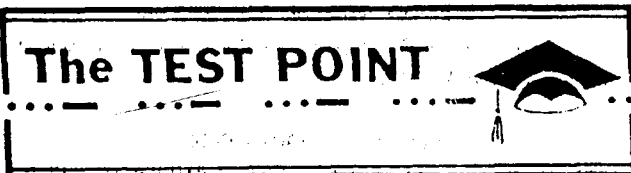
WEST ALLIS RADIO AMATEUR CLUB
Second Tuesday - 8:00 p.m. - St. Francis Savings, 9330 W. Greenfield Ave.

WISCONSIN ASSOCIATION OF REPEATERS
Meetings are held Quarterly, with time and location to be announced. Repeater licensees, trustees, and sponsors are urged to attend W.A.R. meetings. All interested parties are welcome, as well.

WISCONSIN VALLEY RADIO ASSOCIATION (WAUSAU)
First Tuesday - 7:30 p.m. - Location varies; info on 146.04/64, Wausau.

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)
Days rotate: 1989 meeting dates: Tue., Oct. 17, Wed., Nov. 15, Thu., Dec. 14, 1989. Monday meetings in room 288 of the Baraboo Civic Center; all others in room 25. Meetings start 7:30 p.m.

Let Badger State Smoke Signals know your club's meeting dates, and we will let our readers know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other clubs interested in making an interclub visit.



The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area. (Underlined are added or changed since last months BSSS.)

October 4, 1989	Milwaukee WI (MRAC)
October 14, 1989	Eau Claire WI
October 14, 1989	Madison, WI
October 21, 1989	Milwaukee, WI (BE)
November 1, 1989	Milwaukee WI (MRAC)
November 11, 1989	Menomonie, WI
November 18, 1989	Milwaukee, WI (BE)
December 2, 1989	Stevens Point, WI
December 7, 1989	Milwaukee WI (MRAC)
December 16, 1989	Milwaukee, WI (BE)
Monthly, First Sat.	Racine, WI
Monthly, Last Sat.	Tomahawk, WI
Monthly, Third Sat.	Loves Park, IL
Minnesota tests listed at end of column	

GENERAL RULES FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Most examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 25¢ SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$4.75 payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB - MRAC/VEC

1989 dates: Oct. 4; Nov. 1; Dec. 7

Tests are Wednesday evenings at 7:00 p.m. at Wauwatosa East High School, North 74th and Milwaukee Avenue. Enter through the southmost entrance on 74th Street. Go to room 256 on the 2nd floor. Please arrive promptly so testing can be completed before 10:00 p.m. Bring your original license and three (3) good photocopies, plus two forms of identification, such as a driver's license, etc. A pen and \$4.75 for the exam fee is also required.

Register in advance on a 15 cent U.S. postal card; print the grade of license you are applying for, and your name, address, and telephone number. Send the card to MRAC/VEC, c/o Jack Krause, W9JK, 1737 North 116th Street, Wauwatosa, WI 53226, or to Ed Seruga, KE9JJ, 3840 South 43rd Street #21, Milwaukee, WI 53220. Telephones: (414) 774-6999 or (414) 545-6299.

BADGER EXAMINERS (BE) - MILWAUKEE

1989 examination dates:

Unless otherwise noted, examinations are administered beginning at 1:00 p.m. to 3:30 p.m. at St. Nicholas Church basement, 5345 N. Green Bay Ave. (2 1/2 blocks south of Silver Spring), Milwaukee. Walk-ins are welcome. To register in

advance, send a post card with your name, test or tests you wish to take, date you wish to take., your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, WI9M, 5119 W. Willow Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

EAU CLAIRE, WISCONSIN

1989 examination dates: October 14
Facilities Management building on the University of Wisconsin - Eau Claire campus. Exams are given from 9 a.m. until noon. All walk-ins accepted. For further information, call Carl Searing, W9NW, at 715/834-1303.

MENOMONIE, WI (ARRL/VEC)

November 11, 1989.

Sponsored by the Dunn County ARC. Walk-ins only. Credit Union Office Building, Conference Room, lower level, 444 S. Broadway, Menomonie, WI. Contact: Dr. Thomas W. King, WF9I, c/o office, 444 S. Broadway, Suite 1, Menomonie, WI 54751. (715) 235-4747 (O), 235-5757 (H).

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August.

Exams are given at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted. Inquiries and registrations should be directed to William Firchow, Jr., NW9P, 1912 27th St., Kenosha, WI 53140, telephone (414) 658-8390.

Last Saturday of every month.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No pre-registration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Greg Garner, WA9W, 4088 Highway 51, Harshaw, WI 54529. Telephone (715) 453-7096.

Third Saturday of every month.

Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban Library on North Second Street in Loves Park, IL. Contact: Gene Melton, AK9N, 2901 Billie Rd., Rockford, IL 61109, (815) 874-6867

MINNESOTA TESTS

October 14, 1989	ARA Bloomington
October 21, 1989	Minneapolis ARC & Gopher ARC
October 28, 1989	Hamfest Minnesota
December 2, 1989	SPRC
December 9, 1989	ARA Bloomington

Contact:

ARA Bloomington, Art Putt, KDØCL 881-7181
SPRC, Mary Ketzler, KSØOMX 426-4438
Minneapolis ARC & Gopher ARC,
Jeff Kolb, WB5MTV 699-6861

Hamfest Minnesota - Administered by Bloomington ARC. SASE to VE exams, Art Putt, 10700 Sheraton Ave., South, Bloomington, MN 55431.

The above listing of Minnesota tests came from the Ground Wave newsletter published by the St. Paul ARC, and other sources. If you are interested in any of these exams, save this issue as BSSS may not be able to include the information in every issue.

Wisconsin Nets Association Ltd.

WISCONSIN NETS					
Net	WNA	Freq	UTC	CDT	Manager
BWN	Yes	3984	1100	0600	KC9CJ
BEN	Yes	3985	1700	1200	WA9W
WSBN	Yes	3985	2230	1730	K9ANV
WNN	Yes	3723	2300	1800	KA9TTM
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9NGP
NWTN	Yes	34/94	2330	1830	NS9Q
Gr. Bay	No	72/12	0145	2045	WB9NRK
			Thu.	Wed.	
RACES	No	3993.5	1715	1215	WC9AAG
			USB Tues and Thurs		
RACES	No	3993.5	1300	0800	WA9OAY
			LSB Sunday		

Section Manager's

notes

Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221



Congratulations to the Green Bay Mike and Key Club for 50 years of affiliation with the ARRL.

Free map showing the revised District Emergency Coordinator boundaries for Wisconsin is available from our Section Emergency Coordinator, W9ZAG.

New Emergency Coordinators are: Portage County, KA9ACE; Vilas County, KA9YQH; and Walworth County, KA9JJK.

Monroe County EC, KA9PSL, is new Secretary of the Associated Public Safety Communication Officers, and will have Spring Regional Conference in La Crosse on May 8, 1990.

Ozaukee Radio Club says new repeater is working fine on 224.18 MHz; give it a try.

The Central Wisconsin Radio Amateurs have new WB9QFW/R Hustler G-7 repeater antenna.

Watertown ARC has net on 145.49 Thursdays at 8:00 p.m.

KJ9I described his DX-pedition and N9HC demonstrated his briefcase emergency packet system at Four Lakes ARC meetings.

The 1989-90 \$500 scholarship winners of the West Allis RAC are KA9LWN of Shawano and WB9VOZ of Wausau.

At the Wisconsin Nets Association Annual Picnic, members presented the 1988 traffic handling plaque to Hale Blakely, W9CBE, with 2,939 points; endorsement tags for their previously awarded plaques were given to WB9YPY (21,444 points) and KC9CJ (6,560 points).

November 1st, Milwaukee RAC exams in Wauwatosa at East High School, send post card indicating tests needed to W9JK to register.

November 4th, the Milwaukee Repeater

Club will hold the 6.91 Friendly Fest; open at 8:00 a.m., 7:00 a.m. for sellers, inside Serb Hall, 51st and Oklahoma in Milwaukee with free parking. Contact K9IZV for more information. See you at the friendly ARRL table. The Friendly Fest will have on-site exams given by the Milwaukee RAC/VEC starting at 9:00 a.m.

November 4th, Racine exams at Red Cross Building, register with N9DMP.

Dunn County ARC exams November 11th, Credit Union Office Building, Meno-

monie, info from WF9L.

The West Allis RAC will hold its Awards Dinner soon.

November 25th, Tomahawk VE exams 8:30 a.m., appointment with WA9W.

Remember to indicate your club participation when submitting an entry in the November phone or CW ARRL Sweepstakes, mark your log accordingly.

Don't delay your antenna work any longer, winter is coming.

Happy Thanksgiving to all.

Hams Quit-or are Fired- From the Queen Mary

Amateur Radio has departed from the Queen Mary ocean liner in Long Beach, California, under less than mutual good will, and the former operators of the station are blaming Walt Disney Corporation for their decision to quit. The Associated Radio Amateurs of Long Beach, Inc., have issued a statement that lays the blame for the demise of the station directly at the feet of the Disney subsidiary that oversees the attraction: "After more than ten years operating in the wireless room of the Queen Mary, the club station of the Associated Radio Amateurs of Long Beach, Inc., W6RO, has discontinued operation in this very popular and famous location.

"Operation was possible on this commercial venture because the station was always operated as an autonomous unit under the direction of Nate Brightman, K6OSC, who, in 1979, had persuaded the ship's first director to rebuild the radio room as an exhibit that would be operated as an Amateur Radio station with the purpose of promoting Amateur Radio and the City of Long Beach. During its ten years of operation, millions of tourists had an opportunity to see Amateur Radio in ac-

tion and to talk to the operators. It also provided tourists with the only year round live exhibit in the entire Queen Mary/-Spruce Goose complex. Approximately 100 Amateur Radio operators, regardless of their club affiliation, kept the station open just about every day of the year.

"When the Walt Disney Corporation bought the Wrather Corporation to obtain the Disneyland Hotel, they also acquired the Queen Mary operation and exhibited the ocean liner under the name of WCO Port Properties, Ltd. Unfortunately, the new management recently notified the amateurs that the only way that they could continue their operation was for the Amateur Radio operators to have more interaction with the tourists.

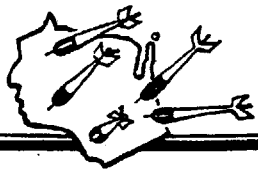
"At this point, the management was advised that operating under their orders would be a violation of FCC regulations that prohibit control of an amateur station by a commercial venture. When they continued not to agree to the amateurs' request for continued autonomous operation, management was notified that operation of W6RO would be terminated effective September 5, 1989."

- The Westlink Report

Name Search

A	K	W	K	J	W	U	Q	T	A	O	N	E	W	X	N	DICK
B	Y	R	R	A	L	E	M	G	L	Q	Z	V	M	G	Z	GREG
Y	N	P	K	H	T	F	Z	T	E	K	C	A	P	R	R	RAY
R	W	R	B	C	V	T	X	Z	O	Y	E	J	B	E	E	MARY
A	M	T	K	M	I	O	R	L	H	Q	V	A	X	G	Y	LEE
M	P	T	D	Q	S	D	E	I	U	S	S	B	O	N	C	LARRY
P	R	Y	U	C	E	E	S	X	E	U	F	T	D	Y	H	ED
M	I	L	K	N	H	O	I	I	D	B	M	W	O	V	Q	ADRIAN
A	F	T	X	M	N	U	W	V	D	B	O	C	D	T	N	RICH
Z	S	I	F	Q	P	O	B	E	W	E	G	W	E	J	W	FRED
E	R	I	C	H	H	Y	A	R	D	F	N	J	D	B	Z	ED
B	J	E	G	A	K	I	O	P	X	F	A	X	G	I	J	HOWIE
G	F	S	X	G	U	B	W	J	R	X	I	Y	B	L	N	SSB
L	T	I	J	E	P	J	Q	E	Y	C	R	H	P	F	Z	CW
F	K	M	D	G	L	E	D	K	W	Q	D	H	I	W	B	PACKET
A	E	L	C	Z	E	Q	I	D	F	U	A	F	M	N	P	RTTY

This word search puzzle is based on the first names of the managers of member nets of the Wisconsin Nets Association, the first names of our Section Manager and our Section Emergency Coordinator, and the first names of our Central Division Director and Vice-Director, along with four popular modes for handling traffic. The solution is on page 16 of this issue. Have fun and remember, no cheating!



HERE and THERE

JOTA OCTOBER 21-22: Boy and Girl Scouts from around the world will talk to one another via Amateur Radio, during the Jamboree-On-The-Air. Hams and scouts will exchange their names, locations, scout ranks, and stories about other hobbies. Many will become pen pals as a result of the exchanges.

Sponsored by the World Scout Bureau, Geneva, Switzerland, JOTA runs from midnight Friday through midnight Sunday the weekend of October 21-22. World Scout calling frequencies are voice: 3.940, 7.290, 14.290, 21.260, and 28.350 MHz; Morse code: 3.590, 7.030, 14.070, 21.140, and 28.190, plus the usual RTTY, slow scan, television, and packet frequencies.

Amateurs or visitors should call "CQ Jamboree", or answer stations doing so. Look for K2BSA, BSA HQ Amateur Radio station in Texas, and HB9S, World Scout HQ station.

Amateurs are encouraged to contact local Boy and Girl Scout councils (see the white pages) to invite the troops to their stations.

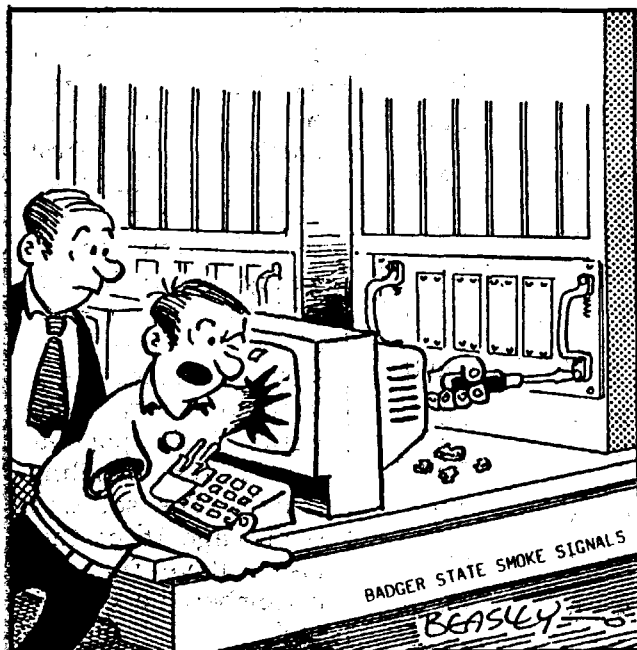
ARRL HQ will welcome activity reports, including Scout unit number, number of participants, and good quality photographs. Contact League HQ (225 Main St., Newington, CT 06111) for special Amateur Radio/Scout brochures to give to nonham scouts.

- ARRL Section Leader
:-----:

AMATEUR'S CODE MODERNIZED: The Board of Directors of the American Radio Relay League modernized the time-tested "Amateur's Code" at its July 22-23 meeting. Here it is:

The Radio Amateur is:

CONSIDERATE.... never knowingly operates in such a way as to lessen the pleasure of others.



NOW THIS ONE IS REALLY HARD TO GET TO!

LOYAL.... offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE.... with knowledge abreast of science, a well-built and efficient station, and operation above reproach.

FRIENDLY.... slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for interests of others. These are the hallmarks of the amateur spirit.

BALANCED.... radio is an avocation, never interfering with duties owed to family, job, school, or community.

PATRIOTIC.... station and skill always ready for service to country and community.

- ARRL Section Leader
:-----:

RESONANCE RESEARCH CORPORATION near Baraboo will not have an open house this year, confirms owner D.C. Cox. RRC's open house draws interested folk from all over the state and elsewhere, and is usually held around the end of October. This year, though, D.C. has decided to take a break. RRC manufactures large scale Tesla coils and similar items, which are shipped all over the country. Customers include colleges and universities and research laboratories. D.C. is currently promoting the idea of a science museum, to be located in Madison. The proposed museum was the subject of a recent article in the Wisconsin State Journal.

:-----:

WB2PTI INDICTED FOR MAIL FRAUD: According to United States Postal Inspector Martin T. Biegelman of Hicksville, NY, a Federal Grand Jury in the Eastern District of New York indicted Michael D. Harrison, WB2PTI, of Oceanside, NY, charging 50 counts of mail fraud.

According to the indictment, Harrison, also known as "John McNamara" and "Mike Hanson" "did knowingly and willfully devise and intend to devise a scheme.... to defraud and to obtain money by means of fraudulent pretenses.... and for the pur-

pose.... did use the mails." It is stated that Harrison took out advertisements in several amateur magazines under the name of Atlas Radio, Inc., and offered for sale Uniden products. The money for the orders was received, but the merchandise was never shipped, according to the indictment.

- The ARRL Letter
:-----:

ARRL CONTEST ENTRIES MAY BE SUBMITTED ON DISKETTE: The ARRL Contest Branch can now accept entries for the ARRL November Sweepstakes and other ARRL sponsored contests on IBM compatible MS DOS formatted diskettes, either 5-1/4 or 3-1/2 inch.

Log information must be in a true ASCII file. The summary sheets may also be in an ASCII file, but paper summary sheets are preferred. The log file should take on the layout of the official forms containing band, date, time on/off, time in UTC, number received, call of station worked, check received, section received, multipliers, report sent and points.

For additional information, write or call Billy Lunt, KR1R, Contest Manager, ARRL HQ, 225 Main St., Newington, CT 06111.

- The ARRL Letter
:-----:

ON A RETURN TRIP FROM OSHKOSH, about 10 years ago, I stopped in Ripon to meet an Amateur and his wife. I had talked with him on the air many times, but I had never met him personally. I enjoyed a visit with him and his wife. They were gracious hosts.

That Amateur is Kurt Silber, KB9MQ (formerly WA9UVL). As our readers know from our last issue, Kurt was critically injured in an automobile accident August 10; his wife, Ursula, was killed, as was a passenger in the other car, which reportedly crossed the center line. At last word, Kurt was still in intensive care. Please, if you haven't already done so, send Kurt a get-well card; being remembered and thought about when in a hospital means much, and can even be a factor in a faster recovery. Send your card or letter to Kurt, in care of Ron Silber, 559 Jackson Street, Ripon, WI 54971.

- K9ZZ

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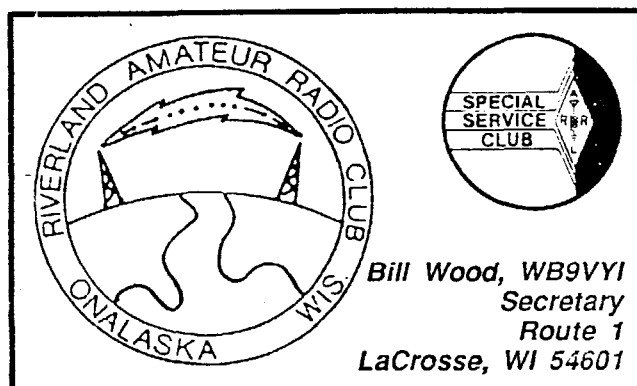
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Due to the absence of Dick, KØJYB, our president, and Bill, WB9VYI, the secretary, Greg Miller, KA9FOZ, sat in for Dick, and George Kroner, KE9PL, acted as secretary-treasurer for the evening. Greg called the meeting to order at 7:30 p.m. September 5, 1989.

There was no report given on previous minutes or from the treasurer.

Van, WA9FIO, gave a lengthy report on the repeater interference problem. Said problem source has been located, and a letter bringing this to their attention has been written. Van made and Craig seconded a motion to have the club write a letter to these people if, by the next meeting, this hasn't been rectified yet. All were in favor.

Craig, N9ETD, asked to be relieved of his jacket and t-shirt sales duties. George, KE9PL, will take over for him.

Charlie, KA9UUK, presented a brochure on a possible fund-raiser the club may want to consider. It was taken by the Executive Committee for further study.

Craig also wanted someone to store the club's Ham Radio equipment we used

for Field Day (emergency antennas, etc.). The equipment takes up about the same space as a car would.

Craig motioned, and Phil, W9UP, seconded to adjourn at 8:07 p.m.

The program of the evening was Dick Konrad, K9OXO, sharing his DXpedition with us.

MEMBERS AND GUESTS PRESENT

Dick Kleppe	KØKTP
Karl Simonson	
Karl Olberg	W4ST
George Kroner	KE9PL
Van Elston	WA9FIO
Walter Altus	WD9GCR
Duane Fruechte	W9HWQ
Glen Whitlock	NØBBW
Ernie Gershon	K9ZVU
Jack Yoshizumi	W9KTD
Phil Uehling	W9UP
Hugh Barker	KAØRJZ
Greg Miller	KA9FOZ
Scott Neader	KA9FOX
Rick Williams	KV9U
Larry Kapp	KB9DER
Tom Speropulos	N9IGS
Wid Johnson	W9DM
Ron Reed	KD9OY
Charlie Burch	KA9UUK
Joe Meyera (visitor)	WA9SOQ
Art Osborn	WØJDC
Maty Johnson (visitor)	XYL/W9DM
Jim Wiskow (visitor)	KE9BC
Mike McAlister (visitor)	WD9DLM
Dan Campbell (visitor)	
Jason Sweeney (visitor)	N9GNA

Silent Keys

James E. Anderson, N9AGH, 51, of Madison, died on Thursday, September 14, 1989, after battling an illness for the past five years. He was a graduate of Rhinelander High School and the University of Wisconsin, and served in the armed forces. He was an employee of Oscar Mayer for more than 25 years. Once an avid sports participant, he devoted many hours of service through his affiliation with the Four Lakes Amateur Radio Club of Madison to helping organize communications for local and area bike and running races. He was a volunteer for the Dane County chapter of

the American Red Cross, and was a former director of Emergency Services.

Jim was also affiliated with the National Weather Service communications network at Truax Field in Madison, where he spent many hours watching the radar screen during SkyWarn nets for the south-central part of Wisconsin. He had also served as Dane County Emergency Coordinator for the Amateur Radio Emergency Service (ARES), and, in that capacity, helped coordinate Radio Amateurs' communications support for the American Red Cross after the Barneveld tornado in 1984. Jim was a quiet, competent communicator, and his expertise and willing help will be missed.

- Greg Zier, KA9VDU, and Jim Romelfanger, K9ZZ

WI. 715/341-4647.

FOR SALE: New Macrotronics "TermInAll" Apple II series RTTY/CW communications terminal interface, complete: \$150.00 or ???. Rohn Spaulding used BX-64' tower, A-1, on ground, with new concrete hinged base: \$395 (48'-64'). New Hustler 6-BTV vertical: \$125. WANTED: crank-up/tilt-over good quality, good condition, tower; prefer up to 80'; will remove, must be A-1. Dick Lust, K9APW, Rte. 7, Verona, WI 53593. 608/833-8335.

ARRL Petitions for Codeless License

(Continued from front page)

the committee report, and proceeded from there to discuss various amendments to it. There had been many other options considered informally during the preliminaries. People should be reassured that the Board gave this subject very, very deep and careful consideration."

Under the League's proposal, Communicators may upgrade to Technicians simply by passing a five word per minute code test given under the VEC system.

Code examinations will continue to be required for all other classes of Amateur Radio licenses, and Morse code will continue to be an important part of ham radio.

- The ARRL Letter, published by the American Radio Relay League



Here are a few random thoughts on a few random subjects:

My sincere apologies to those who have tried in vain to reach me by telephone. My telephone went away in early May; for a while, it appeared as though something would be worked out and I would once again be accessible from the outside world. Now, alas, it looks as though that won't be possible. I know that Radio Amateurs with inquiries about stories and some advertisers and potential advertisers have tried to call me. I can't think of a more serious handicap for a newspaper than to be inaccessible by telephone. But, that's the way it is, and it looks like that's the way it will stay. Again, my apologies.

When Clyde "Coffee" Downing, W9HSY, died in February of this year, some Amateurs were heard to say that a memorial would be fitting. I agree. To the best of my knowledge, that's as far as the idea has gone. I would encourage a memorial to Clyde, and suggest that a scholarship would be the most appropriate. The dollar amount does not necessarily have to be large, and, with a scholarship, Clyde's memory would be recalled at least once a year. A scholarship also would provide our hobby with some nice public relations.

BSSS can always use articles and photos. There are lots of good chances for stories and pictures; how about your club's "Ham of the Year" receiving his/her award? Please send your material to Jim Romelfanger, K9ZZ, Editor, address on page 2. Identify photo subjects by full name, call sign, and home town. Thanks!



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FOR SALE: KLM 2-Meter FM amplifier, model PA-15-80BL. New March 1986, less than 50 hours use. Size: 8 x 7 x 2. 15 watts in, 80 watts out; 10 watts in, 60 watts out. Has on-off-temp. control, pilot lights. \$100.00. Bob Baird, W9NN, Plover,

FCC Denies Petitions for Reconsideration in 87-14; Reaffirms Reallocation

The Federal Communications Commission has reaffirmed the action taken in the August 4, 1988 Report and Order in General Docket 87-14, reallocating 220-222 MHz to the land mobile service. In a Memorandum Report and Order adopted June 15, 1989, and released August 17, 1989, FCC denied petitions for reconsideration filed by the American Radio Relay League (ARRL), the National Communications System (NCS), TV Answer Inc. (TVA), and more than 700 amateurs.

In the Memorandum Report and Order, FCC stated: "the Commission considered a variety of factors in reaching the decisions in the first Report and Order. Among these factors were the need to provide for narrowband land mobile operations, the impact of existing amateur use, the potential for interference to TV broadcasting, and the actions of the 1979 WARC. The Commission concluded that the public interest would be best served by providing dedicated spectrum for the development of narrowband, spectrum efficient land mobile technologies." FCC noted that it was sensitive to the needs of amateurs, but stated that the remaining spectrum (222-225 MHz) "should continue to provide adequately for this service."

ARRL and many other amateurs noted that there was no need for additional spectrum for the land mobile service, according to the FCC Field Operations Bureau (FOB) 1985-86 studies. FCC stated "it is not necessary.... to resolve issues pertaining to this study.we are focusing on long term and not immediate requirements." ARRL proposed alternatives to 220-222 MHz, such as 30-50 MHz and 216-220 MHz. FCC stated "....such reallocation would entail severe costs to.... users.... such as the police and fire service." Amateurs fault the FCC in failing to collect meaningful data on usage of 220, and for using The ARRL Repeater Directory as a barometer of usage, since it is not a complete listing of users of this band. ARRL noted that there are at least 773 fixed stations and 1106 weak signal users of 220-222 MHz. ARRL comments noted that FCC averaged the numbers throughout the US when, in fact, use is concentrated in metropolitan areas. FCC stated that "the principal use of 220-225 MHz is for repeater operations" and that the Repeater Directory is a "reasonably accurate" reflection of usage.

According to the FCC, operations in 220-222 MHz could be relocated to 222-225 MHz, even though amateurs have stated, particularly in California, they would find this difficult and costly. FCC stated that, while it may be difficult to relocate some control links, it could be done through frequency sharing "at little or no cost." Amateurs have stated that packet radio is a new technology, and it requires the same consideration as do new technologies in the land mobile service. FCC stated that there were provisions for packet radio in the band plans of other amateur bands, such as 420-450 and 902-928 MHz, and that packet radio could be accommodated there. ARRL and other individual amateurs have

stated that the loss of 220-222 MHz will impair amateurs' ability to provide emergency communications, and NCS said that the reallocations runs against national security interests. "....NCS has made no showing that amateur spectrum is inadequate" according to the FCC.

With regard to procedural issues, FCC stated "A large number of amateurs, including the ARRL, claim that there were procedural irregularities in this docket. They argue that the irregularities caused serious damage to the quality, fairness and accuracy of this proceeding. Specifically, they claim that the comment period was short.... (and) that, in light of overwhelming opposition by amateurs, the Commission's decision is not supported by the public record." FCC went on to say "the Commission followed the normal procedure for rule making proceedings...." Concerning the argument that the decision is not supported by the public record, FCC stated that it "must base its decision on the merits of the issues and not the number of comments filed in favor of a particular point of view." Additionally, amateur interests have asserted that the FCC violated its own rules in accepting the late filed comments of UPS, that there was little or no support for the proposal within the land mobile community, and that the outcome was predetermined. FCC stated that they accepted the late filed comments of UPS in order to create as complete a record as possible, and that this was in accordance with Section 1.415(d) of the Commission's rules.

The release of the order sets the clock running for ARRL's opportunity to petition the US Court of Appeals for the DC Circuit, requesting their review of the FCC decision.

- The ARRL Letter, published by the American Radio Relay League, Inc.

Here's Mud in Your Tower

Mas Iyama, W8-IYK, Madison, had guests on his tower; swallows built a nest there. One of the materials used is mud, which (we hope) explains our headline. Next door neighbor/photographer John Frank, WB9-TQG, says Mas reported no birdies on any band.



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EAA Oshkosh 1989

By Don Evenson, K9JYX
401 11th Street, Baraboo, WI 53913

Having attended the last EAA Fly-In in Rockford, and the first one in Oshkosh, it has been several years since I've plunged into the multitudes of aviation enthusiasts. So, with my press pass graciously supplied by the EAA, I headed for Oshkosh.

I was pleasantly surprised that, even with all of the highway reconstruction, it was very easy to get into the parking lot. I only had to walk a quarter of a mile to the gate. Sure beats the last time I was there.

After a warm reception at press headquarters, and properly attired in press badges, I headed for the flight line and an inspection of the Russian transport before the crowds got too oppressive.

It is absolutely mind-boggling to stand inside the fuselage capable of holding eight Greyhound busses, and realize this aircraft will fly at a gross weight of 892,872 pounds, at 500 miles an hour, with a range of 10,250 miles.

Now, off to find the Ham shack, and interview some of the Oshkosh gang. After consulting the map, I headed for the other end of the field to find Building 55. For a while, I thought I was in Ham's paradise, until I realized that those weren't handi-talkies strapped on everyone's belts, but portable scanners monitoring air traffic control at the world's busiest airport.

Another peculiarity was that I kept smelling banana oil, but I didn't see anyone in the process of applying fabric to their airplane. Then it dawned on me that it was all of the YLs and the OMs that were slathered in suntan lotion and sun blockers. Some looked like they were dressed for the beach, instead of attending an aviation convention. The weather was ideal, though; sunny, warm, and breezy.

After many trips to the area where Building 55 should be located, and in between looking at exhibits and touring the 'Fly Market', I finally spotted the ARRL flag. Walking around this little 'shack' that was all closed up were a man and woman commenting, "This is where they said they would be."

Greg Patton, W5ECH, and his lovely XYL, from near Dallas, Texas, were touring Wisconsin and heard about the Fly-In, and thought they would like to see it. An Oshkosh station talked them in to the show ground, but never all day did we find the Ham Shack open. Being on a weekday (Tuesday), I can understand the staffing problem. Perhaps some of us Hams could come to Oshkosh and volunteer a few hours in the Ham Shack to help out.

It would also be interesting to know how many pilots in EAA are Hams, and that when they register, they could include their call.

The real highlight of the day came following the air show in the late afternoon. After watching the "History of Sport Aviation," which included the first aircraft to ever do a loop known as the "Pitts Special" to the Russian Sukhoi Su-26M aerobatic plane, the U.S. Air Force C5B Galaxy came in to land. This is the largest cargo plane in the U.S. military, and is second in size to the Russian cargo plane. It was quite an experience to compare the two planes side by side.

Hopefully, I can attend next year, and this time we'll set it up so we can have some eyeball QSOs with the Oshkosh gang.

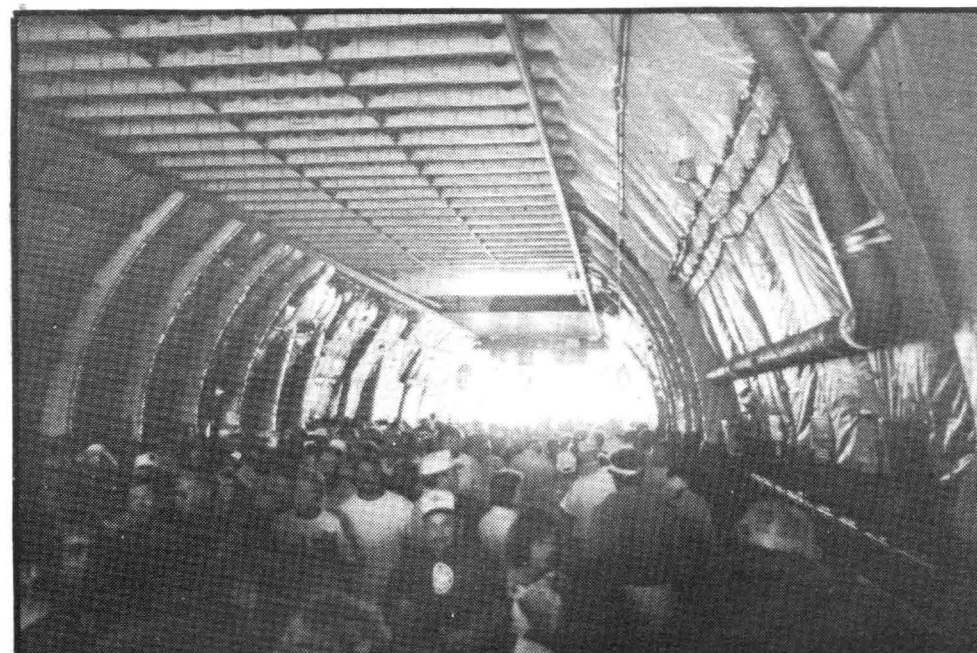
(Typos injected by Remington standard.)



Greg Patton, W5ECH, and his wife, from near Dallas, Texas, stopped by the Oshkosh Amateur Radio Club Ham Shack.



This is the Russian transport airplane. It isn't broken; the nose tips up for loading and unloading cargo.



The cargo area of the Russian transport plane, above, could carry eight Greyhound busses. Photos by Don Evenson, K9JYX.

Eau Claire Amateur Radio Club

Bob Fallis, W9BAR,
Secretary
1851 McKinley Road
Eau Claire, WI 54703

The September meeting minutes of the Eau Claire Amateur Radio Club did not arrive in time for publication.

The club's October meeting will feature a special presentation about a YL DXpedition to the South Pacific; details are given below.

The Eau Claire Amateur Radio Club meeting, on October 10, will feature Young Ladies' Radio League (YLRL) President Mary Lou Brown, NM7N, in a slide talk on the July, 1989 YL DXpedition to Wallis Island and Fiji at the close of the 50th Anniversary YLRL convention in Hawaii.

Mary Lou masterminded the DXpedition, which included four YLs going to Wallis, and three to Fiji. Mary Lou, NM7N, and Audrey White, N7HAT, both from Washington state; Alice King, N4DDK, from Florida, and Mary Ketzler, KA0OMX, from Minnesota (see photo below), operated from

Wallis Island July 6 - 13 with FW/ calls. Then, NM7N, N4DDK, and KA0OMX went on to Fiji, and operated July 14 - 21 with the calls 3D2MB, 3D2AK, and 3D2MK. The DXpedition was very successful, with a total of 7,000 contacts made. (A previous DXpedition Mary Lou made in February of 1988 to Niue Island in the South Pacific was plagued by solar storms and poor propagation).

On becoming licensed as a radio amateur in 1981, Mary Lou wasted no time in getting active. She has held offices in the YLRL as Receiving Treasurer 1984 - 85, Vice President 1986 - 87, and is currently completing a two-year term as president. She and her OM, Bob, NM7M, are ardent QRPers, and members of QRP ARCI International. Mary Lou has operated many of the QRP contests, as well as most of the YLRL contests. She belongs to ARRL, West Washington DX Club, MINOW (a YL group), and RA of Skagit County.

Each year, Mary Lou makes a trip or two across the U.S. in her RV accompanied by her dog Fred, visiting YL friends and relatives. Her trip this year includes a stop in Eau Claire to visit with Mary, KA0OMX, who is now a resident of Wisconsin, and to speak to the Eau Claire Amateur Radio Club. ECARC meetings are held at the Parks and Recreation building at 7:30 p.m. on the second Tuesday of each month. Anyone with interest in amateur radio is welcome to attend. - Bert Spangler, W9ZZI

Barb Honored in "Who's Who"



Barb, N9DIJ, and husband Rich Regent, K9GDF, at the Wisconsin Rapids QCWA Chapter 55 meeting, greeting everyone and handling treasurer duties.

- Photo by Ray Swenson, W9VTL

Barbara Regent, N9DIJ, Milwaukee, was selected to be listed in the book *Who's Who in American Women* for 1989-90.

Barb has been capably working at Delco Electronics in Oak Creek for 11 years, starting as an experimental chemist, and now at the level of Senior Quality Engineer.

She is a graduate from the University of Wisconsin-Milwaukee, and previously did some teaching in science, mathematics, and chemistry, but is also extremely knowledgeable in printed circuits and electronics.

Barb enjoyed recent trips to England, Arizona, and Florida, where she talked about electronics with representatives from other companies working with Delco.

N9DIJ has the Advanced Class license, and is a member of the American Radio Relay League and the W/K Radio Club of Greater Milwaukee. You can find her volunteering at the League booth at Wisconsin swapfests, visiting club meetings, or assisting at QCWA Chapter 55 events around Wisconsin.

Barb enjoys two-meter nets, Field Day activities, and operating the Wisconsin QSO Party. She is also active behind the scenes, proofreading the *QST* column and articles for her husband, Rich, K9GDF.

Barb's other hobbies include photography, reading, and music; she has been organist at church for 14 years, and choir director for the past two years.

- Richard Regent, K9GDF



DXPEDITION YLs

Here, left to right, are Mary Lou Brown, NM7N; Audrey White, N7HAT; Alice King, N4DDK; and Mary Ketzler, KA0OMX. Mary Lou, NM7N, president of the Young Ladies' Radio League, will give a DXpedition slide talk at the Oct. 10 Eau Claire ARC meeting.

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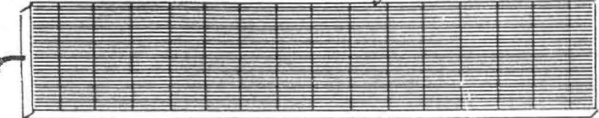
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Ten Ways to Improve Your Sales at 'Fests

By Richard R. Regent, K9GDF
5003 South 26th Street, Milwaukee, WI 53221

Hamfests and swapfests are the flea markets of Amateur Radio, where the buyers bargain for the extra treasures that sellers find in their attics, basements, or garages.

For dishevelled sellers, the story is usually the same: rent table space, dump junk on it, sit in a chair, and wait for the junk to sell itself. Next, many unaware buyers stroll down the aisle right past the table. Later, the junk returns to the same attic, basement, or garage.

When there's no sales appeal, buyers won't skid to a stop, eagerly make an offer, and quickly reach for their wallets or purses. The magic shopper stoppers that can improve sales include sharp marketing, clean merchandise, and a motivated seller. Selling at swapfests, just as running a business, takes a bit of hard work to be successful. One more thought: it is permissible to sell and buy Amateur Radio equipment to your heart's content, as long as transactions are not handled on the air.

Here are ten ways to improve sales at your 'fest table.

1. PRICE ITEMS RIGHT

Establish reasonable prices ahead of time.

Follow these rules-of-thumb to price items right. Ask yourself "What would I pay for this from someone else?" Visit other tables and look in catalogs to find out the going prices. For something used that is in top condition, try half of its price when purchased new. Fairly, but adequately, price your merchandise, or people may take advantage of you. Also, it's easier to lower your price than to raise it.

Prices shouldn't be inflated because items are your heirlooms or have personal mystique.

Vendors making use of fests, pay only a reasonable fee to rent a table instead of hundreds of dollars to rent a store, can afford to sell things at lower prices. Since you have virtually no overhead costs when you rent table space, plan to sell things cheap. Sharp buyers are looking for bargains at fests, and want to find prices below those of regular commercial retail outlets.

2. ATTACH PRICE TAGS AND LABELS

Attaching price tags or labels to every item is smart merchandising. Shoppers commonly see price tags on merchandise or on shelves in stores, and have come to expect it elsewhere.

Plenty of cautious customers won't buy "priceless items", those mystery products that don't have price tags on them. They may never ask for prices, either, because by having to ask for a secret price, potential buyers may feel obligated to buy, or have to alibi when they won't buy.

If you're running a multi-Ham sale, assign different colored self-stick labels for each seller's merchandise. When someone pays for an item, remove its sticker and put it on a tally sheet to make payoff at day's end easier.

As long as you're labeling things, pick out the unusual items and write a sentence on a label about what it is, and a few ideas for its use to conveniently inform buyers. Then you'll also know if someone rearranges price tags.

3. ATTEND POPULAR HAMFESTS

Ask your customers which swapfests they like, and get their reasons. They usually are attracted to hamfests that are clean, convenient, and offer a wide variety of merchandise. Expert sellers caution that the merchandise must fit the market, primarily



Attract more potential buyers, and turn more of them into paying customers at your swapfest table, by following Richard Regent's ten steps to increase your 'fest sales. — Photo by Robin Ford, N19R

based on the customers and location. So, if the 'fest lacks these qualities, customers of Amateur Radio gear won't go there, and maybe you shouldn't either, if you expect to do well.

4. ARRIVE EARLY AND STAY LATE

Doing good at a 'fest means you will have to arrive early and stay late. You've seen swapfesters that don't succeed. They come in late with 50 dollars worth of stuff, expect to have a thousand-dollar day, don't succeed, and leave early.

Proper timing can be important, too. For example, your timing could be off if you open before the official 'fest starting time; your best items may depart too soon at prices lower than you could get during the 'fest.

5. PICK A GOOD LOCATION

Position yourself and your display where normal pedestrian traffic already exists.

If you have a choice of locations at an indoor swapfest, pick a table with a wall behind it. You'll be on the more heavily traveled outer perimeter, could post some advertising signs on the wall, and might have an electrical outlet handy.

Avoid tables near entrances where people rush by as they orient themselves to the unfamiliarity of the room. Safety practices teach us not to clog entrances, which can become exits in case of fire, so onward the visitors race. Sometimes entrance area tables inadvertently become information booths, where you are expected to answer newcomers' questions, like "Where do I put my raffle ticket?" and these tables may then become convenient desks for

filling out raffle tickets, with an unintentional sloshing of beverages on your merchandise. If you are positioned in the wrong location, newcomers might not even see your table.

6. SET UP ON A TABLE TOP

The most effective way to display merchandise, whether it's indoors or out, is to put it on a table. Surface space is the key to a good looking and easy to view display.

You might have to improvise with a light-weight folding table, card table, picnic table, a door on sawhorses, or even a piece of wood on upside-down garbage cans. Experienced vendors build small pegboard vertical displays to increase the surface area even more.

Displays scattered on drop-cloths or tarps on the ground, or under tables, don't look inviting, because everything is harder to see, and many folks won't bend over to pick up an object for a closer look.

7. ORGANIZE YOUR MERCHANDISE

Buyers are searching for a neat table that is organized, but not necessarily flashy or gaudy. Frequently, they are more concerned about the quality, appearance, and packaging of merchandise than its price.

Line up and organize your merchandise by category. Compartmentalize capacitors, resistors, semiconductors, large units, wires, connectors, and place everything with some thought.

Use plastic bags to show small components, but be careful if you use plastic outdoors on a hot, sunny day; the bags can fog with moisture. Little customer conveniences, such as bags, boxes, newspapers for breakables, and string for tying, will make it easier for someone to buy more than can be carried in one hand.

Take time before 'fest day to wash or clean sale items. A clean receiver will sell faster than one that is dirty and dusty. George Herbert, although not an Amateur, knew this important tip for swapfest sellers. He was quoted in the year 1651 to aptly state that "Pleasing ware is half sold."

Give handouts to lure customers, and encourage them to browse longer - and spend more money. Set up a "free merchandise" table or box. Kids love it, and you'll get rid of lots of odds and ends. Display more valuable items near you and your cash box.

Profit comes from having a good mix of merchandise that appeals to beginners and advanced Amateurs, and yet is neat and organized.

8. SHARPEN UP YOURSELF

Project a positive, pleasing image.

There's an old Chinese proverb: "A person without a smiling face must not open a shop." That's good advice for running a 'fest table, too. Smile; a friendly, welcoming attitude will encourage sales.

Use people's names and calls with a sincere greeting. Wear your name or callsign badge. Standing helps energize your enthusiasm, but don't intimidate or lurch. Wearing appropriate and clean clothes reassures buyers that you are distinctive in the right way, because to be successful at 'fests, you must act business-like, and look successful.

9. KNOW HOW TO SELL

'Fests can draw out the buying frenzy and excitement of people. The bigger the crowd, the better chance you have to sell. You might even engage your family and friends to help sell with you.

You won't have to spend on advertising, since committees of popular 'fests publicize, promote, and do the costly advertising for the event to attract people. But it does make sense to tell your potential customers, when you can, that you will attend 'fests, and you look forward to seeing them.

Customers love to hear a timely "How may I help you?" Know what you sell, but don't trap people with a long sales pitch. Once

you start a transaction, be careful not to glance too long at another buyer, or you will start that buyer talking. It's better to say "Be right with you," and concentrate on completing one transaction at a time. If you're prepared to barter, let that be known. Making a sale usually takes little effort, just saying a few encouraging words at the right moment.

Have an adequate supply of \$1, \$5, and \$10 bills on hand so you can make change. Asking for cash only is certainly your best and most sensible policy, unless you know the buyer. Checks can bounce even when you gather sufficient identification. Putting an item "on hold" is often more worthwhile than taking a personal check. Write down the names and phone numbers of other interested buyers, in case the first person fails to return with the cash.

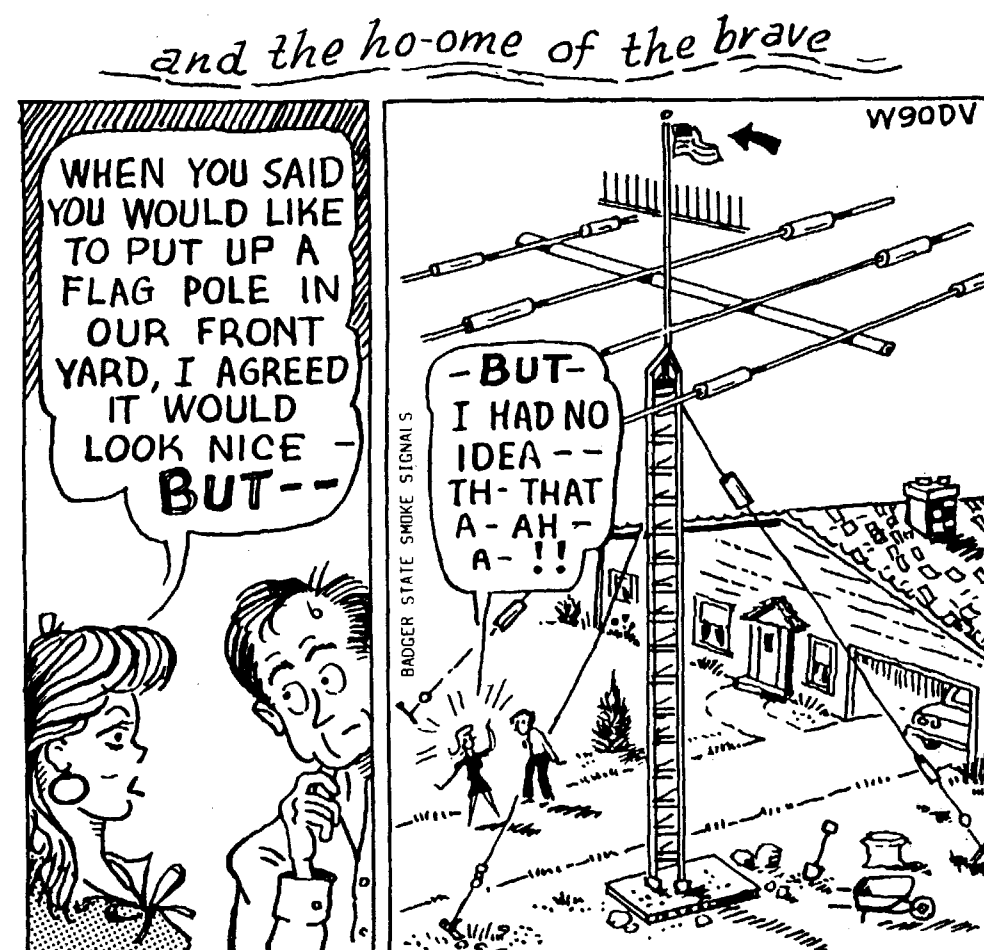
Good customer service may include giving refunds or exchanges for a justifiable reason.

10. DEMONSTRATE THAT THE EQUIPMENT WORKS

An equipment demonstration can clinch a sale, and may attract more buyers. Know where electrical outlets are, and have an extension cord available to verify that the electrical items you're selling do operate. Have the right batteries ready for battery-operated units.

You'll soon discover other tips which you can use to increase sales at 'fests. After the 'fest, save the good stuff you don't sell for later, donate the junk to a radio club, or take it to the town dump. Improving your 'fest sales is really very simple; it requires human relations, creativity, a bit of hard work, and mostly a lot of common sense.

DOES YOUR CLUB OR GROUP SPONSOR A SWAPFEST? Advertise your event here in Badger State Smoke Signals! We reduce a copy of your flyer and border it to create a display ad. And, for clubs, we'll do it for a special, reduced rate of just \$25 for one insertion, or \$48 for two. Just send two copies of your flyer, along with a check, and tell us which months to run your ad. Send the material to Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. It pays to advertise your swapfest here in Badger State Smoke Signals!



The Communicator

News of Greater Taylor County Area Amateur Radio Events and Activities

Mike Schoenfuss, N9GHZ, Editor, P.O. Box 401, Abbotsford, WI 54405 • Phone (715) 223-3996

MONTHLY CLUB MEETING - TAYLOR COUNTY AREA AMATEUR RADIO CLUB

Thursday, October 12. Location: Emergency Government meeting room, basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Streets, Medford, Wisconsin. The meeting starts at 7 p.m.

AGENDA AND PROGRAM FOR OCTOBER MEETING: A Wisconsin Bell Telephone Company videotape, entitled "Lightwave", will be shown.

CLUB NEWS

Attendance at the September meeting was as follows: W9LEE, KA9WDX, KB9BLV, KE4FE, WD9FWP, W9QHI, WD9C, KE9LX, KA9UXN, N9GHZ, and N9IFA. The treasurer's report indicated a balance of \$947.78 in the treasury.

The membership present passed resolutions to sell the Cushcraft Ringo Ranger antenna from the Midway Telephone Company tower, and to approve the installation of additional feedline and a UHF antenna on the same tower for the packet radio node, at no cost to the club, and to retain the existing feedline on that tower for future use. N9GHZ is providing the new feedline, 2-meter and 440 MHz antennas, and is covering the cost of the labor involved. N9GHZ also indicated a buyer has already been found for the Ringo Ranger.

The consensus of the membership present was to postpone a decision to try out some Motorola equipment on a trial basis on the W9QHI/R repeater at this time, but to continue to evaluate the effect of installing the Spectrum Communications FL-6 VHF receiver front-end preselector/filter/preamp on the repeater.

Following adjournment of the meeting, a Wisconsin Bell Telephone Company video entitled "Laser" was shown.

TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE NEWS

From Mike Schoenfuss, N9GHZ,
Taylor/Clark County ARES
Emergency Coordinator

Don't forget to try to check into the weekly ARES net held Wednesdays at 8:30 p.m. on the Medford repeater (147.75-/147.15). You're also encouraged to volunteer for net control duty for the net.

147.75/15 MEDFORD REPEATER (W9QHI/R)

The Spectrum Communications FL-6 VHF receiver front-end preselector/filter/preamp was installed on the repeater as of August 28th, thanks to the efforts of W9LEE. The device does appear to have improved the sensitivity of the repeater's receiver, but did not eliminate our RFI problem. Repeater users should continue to evaluate the performance of the repeater with the FL-6 installed. We also need to continue looking for the source of our RFI problem.

Work is continuing on the new repeater cabinet.

144.67/145.27 DORCHESTER REPEATER (WA9ZCO/R)

A reminder to all that the RAIN Dial-Up Service weekly amateur radio news bulletin can be heard on this repeater every Wednesday evening at 8 p.m.

N9GHZ-1 (WIMED) PACKET RADIO NODE

The new Hustler G7 antenna and Bel-den 9913 feedline were installed on the Midway Telephone Company tower in Medford on Monday, September 18. The tower work was done by N9DXZ of Marshfield, with N9GHZ and KE4FE assisting. N9DXZ reported that the connector on the existing feedline on the tower, from the old repeater installation, was corroded and green in color and the solder had actually disintegrated, which could explain some of the repeater problems we were experiencing earlier at that site. Work is still progressing on the digipeater cabinet, with WA9ZCO handling that end of it. It is hoped to have the node on the air by the end of September.

BITS AND PIECES

Happy Birthday to Gary Day, KE4FE, Rib Lake, who turned 50 on August 22nd.

Don't forget JOTA (Jamboree-on-the-Air), October 21 and 22. We will have only one more club meeting prior to this event, which gives Boy and Girl Scouts an opportunity to experience and participate in amateur radio. It would be nice to see a club effort in this, or at least by some of our members involved. Hams can contact their local Girl or Boy Scout troops to invite them to their stations, or a station could be set up at another location, which might afford more room for visitors. If anyone does get involved with this, it would be nice to get some photographs of the activities, as well. Special brochures and certificates are available to those participating, and if I know for sure that there will be some local activity, I will send for a supply of these materials for our use, but I'll have to know soon.

NASA Approves Next SAREX

The SAREX (Shuttle Amateur Radio Experiment) working group says that it has full NASA approval for Ron Parise, WA4SIR, to be the next ham to operate a manned Amateur Radio station, from the STS-35 shuttle flight, currently scheduled for April of next year. The announcement comes as the result of the SAREX team getting approval on the Payload Implementation Plan (PIP) for the flight to carry amateur voice and packet gear. Equipment for the flight is currently being built and tested by the Shuttle Amateur Radio Experiment engineering group, and a new antenna is under development by the Motorola Amateur Radio Club of Schaumburg, Illinois.

NASA has also given the working group preliminary approval to fly amateur gear on STS-37. The next step here is to get payload implementation to include two-way slow scan and uplink-only fast

scan amateur television, in addition to the voice and packet gear. Ken Cameron, KB5AWP, is the pilot designated to fly STS-37. If all goes as planned, Cameron could also be the first to operate the full-blown SAREX Two package from space.

Also still waiting for approval are extensive plans for a full time Amateur Radio presence on the planned U.S. space station. During his appearance at the recent ARRL Southwestern Division Convention in Los Angeles, astronaut Cameron gave the amateur public its first look at the ambitious project by way of conceptual drawings and slides produced by Lou McFadin, W5DID, and the Johnson Space Center Amateur Radio Club, W5RRR. McFadin's drawings indicate an elaborate station for both recreational use by the crew, and educational use in conjunction with ham stations at schools on the ground.

- The Westlink Report

Repeater Profiles



By John W. Frank, WB9TQG
P. O. Box 5113
Madison, WI 53705

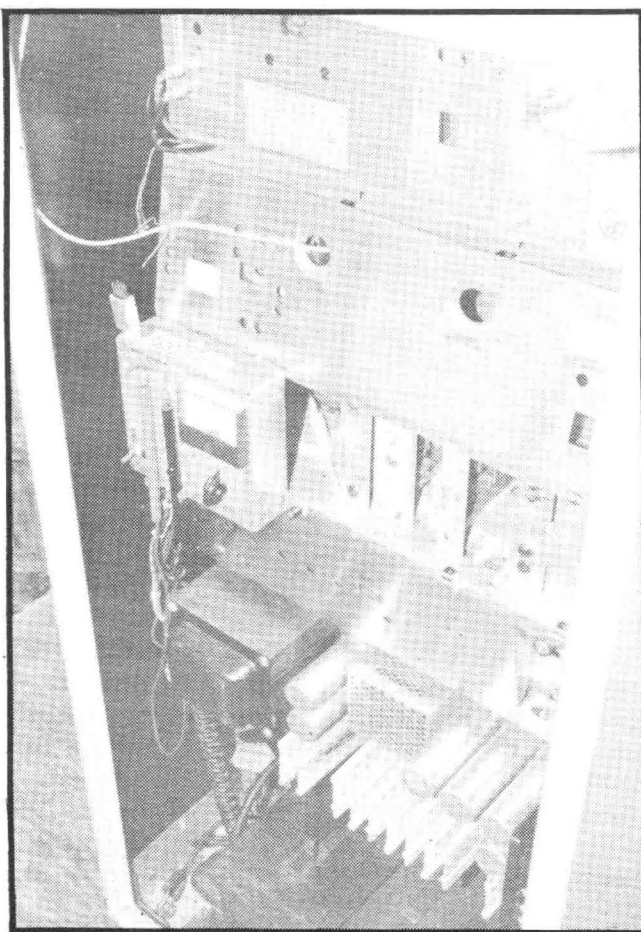
In the thirteen and half years I've been a ham, I've seen a lot of repeaters. One was a collage of cast-off commercial equipment held together with jumper clip leads and an old code practice oscillator. At the other extreme is a brand new Brand "I" repeater that works just fine, but has no character, and might as well say Maytag or Whirlpool on the front panel. The machines owned and operated by the Tomahawk Repeater Association, Inc. fall somewhere in between these two extremes, and (in my opinion) epitomize what a ham radio repeater should be.

The heart of the equipment is a modified Motorola Micor. The transmitter feeds 90 watts to a Phelps-Dodge Super Station-master antenna through a Sinclair duplex-er. The antenna is 190 feet up the tower, and is 2070 feet above mean sea level. Please don't get the impression that this repeater is just a bunch of commercial equipment retuned for the 2-meter ham band. Although it is based on commercial equipment in the interest of reliability and affordability, much of the ancillary equipment is either homebrew or store bought for the Amateur Service.

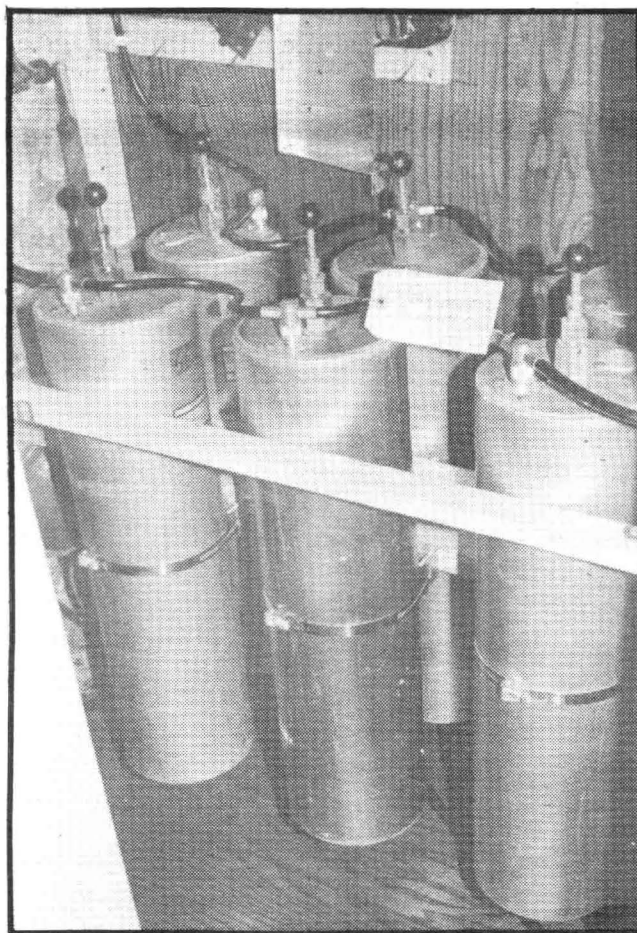
According to Walter Dieter, N9CLE, the repeater first went on the air in December of 1984, using a programmable memory keyer as an IDer. Story has it that a group of Hams, led by Don Moriarty, AJ9W, and known as the "motley crew", were out in the woods of north-central Wisconsin putting this repeater on the air (with the memory keyer IDer), when they realized they had no paddle to connect to the keyer to program it. With outstanding Ham Radio ingenuity, they used wires wrapped around small nails to simulate a paddle and program the keyer. The current technical committee includes Mike Hamman, KA9BHL, and Howard Sloan, K9CMB.

The repeater is funded in part by the Rhinelander Hamfest. This hamfest is held each August in Rhinelander, and is a joint effort involving the Tomahawk Repeater Association and the Rhinelander Ham club. The rest of the budget comes from members' dues. Dues for full members is \$20.00 per year, with limited and seasonal members paying \$10.00 per year.

The 2-meter repeater uses an input frequency of 144.83 MHz, and an output frequency of 145.43 MHz. But, there's more. At the same location, and on the same tower, there is also a 220 MHz ma-



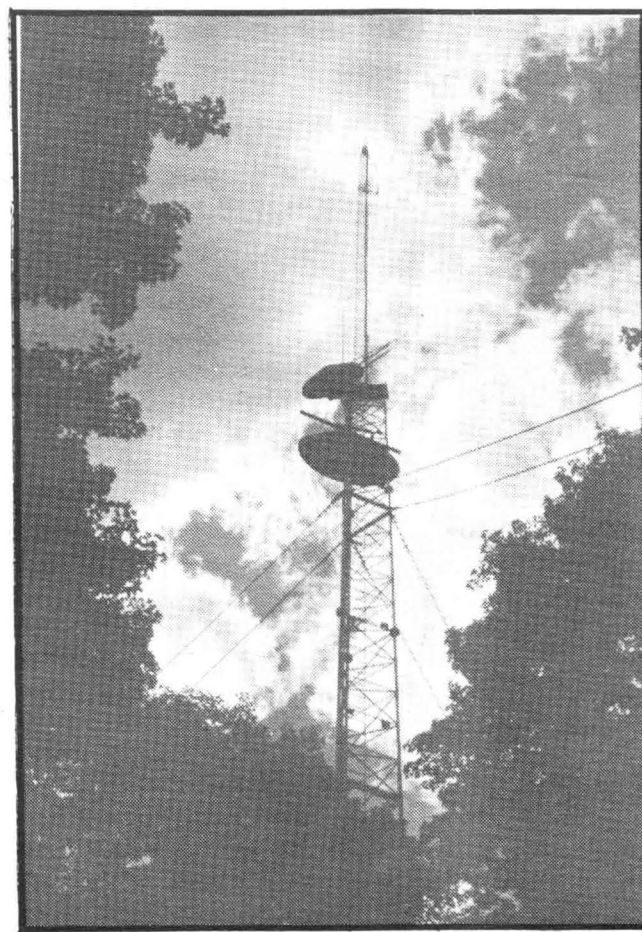
A Motorola Micor serves as the heart of the repeater.



Sinclair duplexers keep the signals going where they belong.

chine, based on a Midland model 13-509 transceiver, modified for use as a repeater. The 220 MHz transmitter drives a 40 watt Mirage amplifier, which feeds a 4-bay Cushcraft antenna through a TX-RX duplex-er and 7/8 inch hardline. The output of the 220 MHz repeater is on 223.76 MHz.

For more information about the Toma-



A well-guyed tower keeps the Tomahawk Repeater Association's antennas up in the sky. Photography buffs note: this photo was taken using a red filter, which enhances the appearance of the clouds.

Photos by John W. Frank, WB9TQG.

hawk Repeater Association, contact Walter Dieter, N9CLE.

Before signing off on this edition of Repeater Profiles, I want to take this opportunity to thank Walter for finding time in his busy schedule to take me out to the repeater site and provide me with an abundance of information.

73,

John

P.S. Tomahawk isn't really at the edge of the earth, but it's close enough that you can at least see the edge, hi.

More Repeater Profiles photos are on page 16 of this issue of Badger State Smoke Signals.



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FOR SALE: RACK CABINETS - Have three, seven foot high grey rack cabinets. \$25 per cabinet. First come, first served. 608/356-3647.

WANTED: Manual or copy of manual for BC-348H receiver. Jim Romelfanger, K9ZZ, 412 1/2 Ash St., Baraboo, WI 53913.

New Products

ICOM IC-2400A VHF/UHF DUAL BAND FM TRANSCEIVER

Icom proudly announces a new advanced FM dual band mobile transceiver. The IC-2400A had independent frequency readouts, volume and squelch controls for complete dual band operation. A sophisticated transceiver that is simple to operate!

High Power Output: The IC-2400A maintains high output power on both bands. On 144 MHz, high power output is 45 watts, and on 440 MHz it is 35 watts. Low power on both bands is 5 watts.

Full Duplex Capability: The IC-2400A provides simultaneous receive and transmit operation on separate bands. The dual band transceiver has independent, full duplex capability on both 2 meters and 440 MHz!

Easy Operation: Now you only need one transceiver to do the job of two. Dual band operation gives you the feeling of operating with two separate transceivers. The main and subbands are easily changed at the touch of only one switch.

40 Memory Channels: Each band has 20 memory channels to memorize the frequency, duplex, tone encoder on/off, and tone frequency. Enough channels to memorize all your group frequencies and repeater frequencies!

Safe Switch: Each switch is embossed with a small convex dot for easy, one-touch feel. Know each switch position without having to take your eyes off the road!

Two Band Simultaneous Receive: When an optional external speaker is connected to the IC-2400A, receive signals can be separately heard from the internal speaker and the external speaker. Also, with a simple modification, the IC-2400A will work as a vehicular repeater.

The IC-2400A also uses Icom's exclusive SET mode for simple operation. For additional convenience, the IC-2400A also has an optional PL tone encode/decode squelch pocket beep unit available. Suggested retail price for the IC-2400A is \$899.00.

- Icom news release

ICOM IC-726 HF/50 MHZ ALL MODE TRANSCEIVER

Icom proudly announces the combined HF and 50 MHz delight, the new IC-726. This small, lightweight, and easy to operate HF transceiver is big on performance, with band operation from 500 KHz - 30 MHz and 50 - 54 MHz. Enjoy DXing with the IC-726, and take advantage of the great 50 MHz band conditions during this time of exceptionally high sunspot activity.

* 100 Watts Power Output - a full one hundred watts output on all HF bands, and 10 watts output on six meters.

* **Wide Dynamic Range** - Imagine working DX, then switching to six meters

at the touch of a button. Now, with the new Icom IC-726, everything from 1.8 to 50 MHz is possible!

* **Compact** - The IC-726 is designed to meet the demands of mobile users. It's compact and easy to operate while in your shack or on the road.

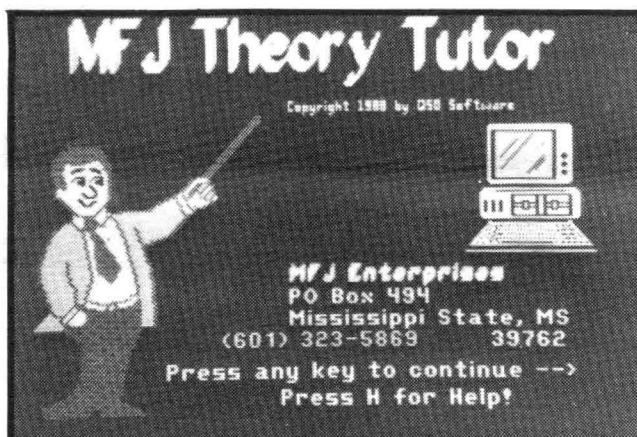
* **26 Memory Channels** - The IC-726 has 22 regular memory channels, two split memory channels, and two programmed scan edge channels.

* **All Mode Operation** - This radio has the optional UI-7 FM/AM board built in. All modes - built in!

* **Band Stacking Registers** - The IC-726 has band stacking registers for remembering your favorite frequencies and modes for each band.

The exceptional IC-726 has all this, and includes 10 Hz digit readout, a variety of scan functions, CI-V system for computer control. Many options are available, such as the optional HF automatic antenna tuner and CW narrow filter. The IC-726 will be available July 1989. The suggested retail price is \$1299.00.

- ICOM news release



MFJ THEORY TUTOR

MFJ's new Theory Tutor practically guarantees you'll pass the theory part of any FCC license exam.

This versatile and fun new IBM compatible software is the best computer tutor ever tailor-made for ham radio. Here's why:

You get the FCC question pool. But, what makes this tutor so special is not that it contains the question pool. It is the uniquely effective, fun way it gets you ready for your test - fast.

You can study the entire question pool, concentrate on selected areas, or try taking sample tests. There's no better way to make sure you know the material. Each study session is automatically saved, and you can return to a previous session at any time. Or, print a test (suitable for official testing) on any Epson or IBM compatible printer.

You also get excellent graphics with appropriate questions, complete scoring analysis, color change options, an on-line calculator, explanations of hard questions, plus much more.

The MFJ Theory Tutor is available for each license class. The model numbers are:

MFJ-1610: Novice; MFJ-1611: Technician; MFJ-1612: General; MFJ-1613: Advanced; and MFJ-1614: Extra. The retail price is \$29.95 per class.

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For more information, contact any MFJ dealer, or MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762, or call (601) 323-5869; FAX: (601) 323-5869; TEL-EX: 53 4590 MFJSTKV; or order toll-free at (800) 647-1800.

- MFJ news release

ICOM IC-2SAT 2-METER MINI HANDHELD TRANSCEIVER

Icom's expertise in miniaturization has resulted in another remarkable handheld, the IC-2SAT. Sleek-bodied, ultra compact, and super convenient defines the 144 MHz FM transceiver. The IC-2SAT has an easy access keyboard, built-in rechargeable batteries, and a kaleidoscope of features and options.

5 Watt Power Output: Utilizing a specially designed, highly efficient power module, the IC-2SAT delivers a full 5 watts of output power at 13.8 VDC. No problem being heard with this powerful mini handheld!

Built-In NiCd Batteries: The IC-2SAT measures 1.9" wide by 4.0" high by 1.3" deep, and weighs just 9.9 ounces. And this includes the internal batteries! When the internal batteries are exhausted, just clip on one of the optional battery packs and keep on operating!

48 Memory Channels: The IC-2SAT has 48 memory channels and one call channel. Each memory and call channel stores operating frequencies and other information required for repeater operation.

Quick Tuning Control: Operating frequencies or memory channels can be easily selected with the built-in keyboard or the tuning control knob on the top panel.

DTMF Code Memory: The IC-2SAT features 10 DTMF memory channel stores up to 15 digits for a DTMF code. Excellent for autopatching!

Built-In Clock: The IC-2SAT is equipped with a 24-hour system clock with timer function. Schedule a QSO and the transceiver automatically turns on when real time matches a pre-programmed time!

External DC Power Jack: The IC-2SAT can be connected to an external 6 - 16 volt DC power supply directly. Internal batteries or the attached external battery pack are also charged when the external DC power voltage is 12 - 16 volts DC. Not only is the IC-2SAT incredibly small, but it's incredibly powerful!

The IC-2SAT is loaded with many exclusive features, such as an auto power off timer function, power saver function, and set modes for numerous settings. In addition to these features, Icom included a

(Continued on next page)

EAA Special Events Station Makes 1064 Contacts

The Fox Cities Amateur Radio Club operated Special Event Station W9ZL during the Experimental Aircraft Association's 1989 Convention and Fly-In at Wittman Field in Oshkosh, Wisconsin.

The club is very proud to be able to operate as a Special Event Station during the convention, and has helped to "tie the knot" between these two great, life-long hobbies.... aviation and amateur radio.

This year, instead of operating in a "contest" mode, we tried to take more time with our contacts, and to share as much information as we could about the EAA's "Oshkosh '89". We found this year's operating to be exciting... to say the least. We talked to pilots, veterans (especially WW II vets, because of the new Eagle Hanger), commercial airline people, experimental aircraft buffs, military airport personnel, and ham operators with an interest in what the EAA Fly-In is all about.

I believe that we helped to convey a message to our amateur friends, that the displays at the convention were, in some cases, the only aircraft of its kind in the world. This truly sparks a lot of interest, especially when one of the Warbirds flies directly overhead while we're on the air!

Another aspect to consider is that, because of the frequencies we operate on (HF spectrum), our signals can be heard all over the world on shortwave radio! So, even if we don't talk to them directly, they may be listening to us, and getting information regarding the Fly-In.

The following is a breakdown of the contacts that were made on the bands worked:

40 meters	655 contacts
20 meters	269 contacts
15 meters	32 contacts
10 meters	77 contacts
2 meters	31 contacts (simplex)

W9ZL was operated Saturday through Tuesday, the week of the convention, with 25 of the Fox Cities Amateur Radio Club's members helping out with the operating chores. We are already looking forward to next year, and we are planning for a "SUPER Special Event" station.

- Wayne Pennings, WD9FLJ,
913 N. Mason, Appleton, WI 54914
via Richard Regent, K9GDF

Way Down Yonder in New Orleans



This photo of the New Orleans, Louisiana area was taken from the space shuttle Atlantis in early May, 1989. Among the recognizable features is the Super Dome, just to the right of center, and about an inch and a half down from the top.
— NASA photo

New Products

(Continued from preceeding page)

variety of other features, like convenient scan functions, priority watch, memory masking, memory transfer, tone squelch, and so much more. Battery packs and a battery case, chargers, headsets, and a wide selection of other options are also available for the IC-2SAT. Suggested retail price for the IC-2SAT is \$439.00.

DEFAMATION OF CHARACTER: A countess sued a man for defamation of character, charging he had called her a pig. The man was fined, and afterwards he asked the judge, "You mean I can never call the Countess a pig again?" "That's right," was the judicial reply. "Well," wheedled the defendant, "is it all right if I call a pig 'Countess'?" "That you can do," the judge replied. The defendant then turned toward the witness box where the peeress was sitting, looked her right in the eye, and said, "Good afternoon, Countess."

- Hamsplatter, Ft. Wayne (IN) Radio Club

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Congress Moves Ahead With License Fee Proposal

Discussions in Congress about possible fees for Amateur Radio licenses have alarmed many Radio Amateurs. Until now, fees were simply under discussion, and there was no bill before Congress proposing them.

But, on Wednesday, September 20, while many Amateurs were using their licenses and their equipment to provide free emergency communications in the wake of hurricane Hugo, and other Amateurs were preparing for it to hit the mainland later that week, a budget bill containing a license fee proposal was introduced into the House as HR 3299.

Action is expected in both houses of Congress early in October. Radio Amateurs wanting to express their opposition to the Amateur Radio license fee aspects of HR 3299 should contact their

Congressional representatives WITHOUT DELAY.

Senator Carl Levin of Michigan has indicated a desire to work with Amateurs to defeat the license fee proposal.

Badger State Smoke Signals encourages you to contact your Congressmen at once. Wisconsin's two senators are Robert Kasten and Herb Kohl; they can be contacted at the Senate Office Building, Washington, D.C. 20510. Your representative may be contacted at the House Office Building, Washington, D.C. 20515. State your opposition in your own words, and provide reasons why you oppose the fees. Don't simply state you are opposed to license fees; that is emotional, but not substantive. And, do NOT send form letters!

- Portions of the above from The ARRL Letter

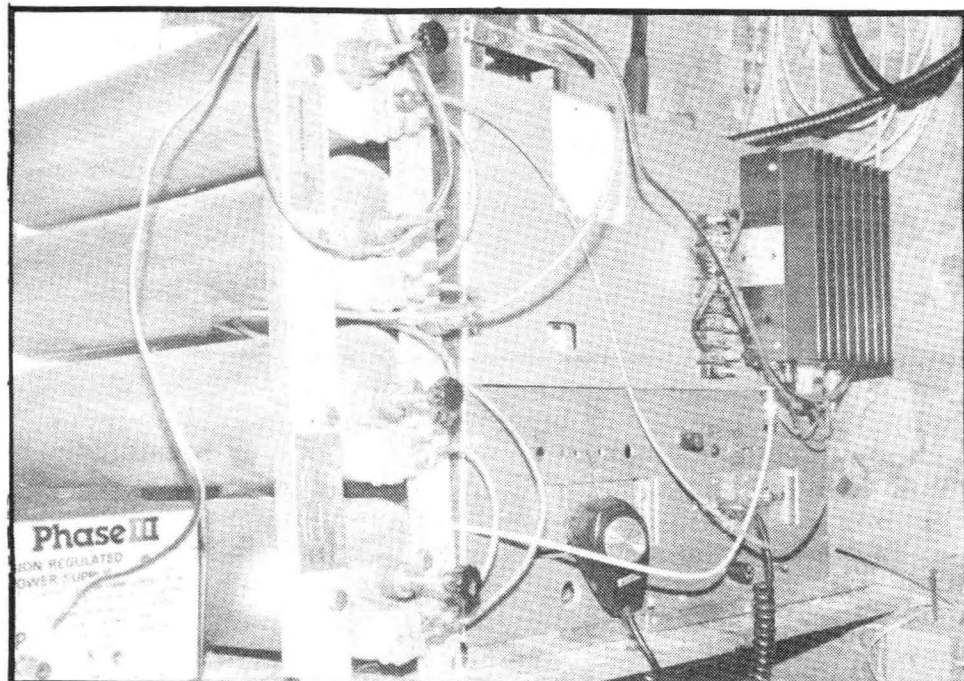
Name Search

A	K	W	K	J	W	U	Q	T	A	O	N	E	W	X	N	DICK
B	Y	R	R	A	L	E	M	G	L	Q	Z	V	M	G	Z	GREG
Y	N	P	K	H	T	F	Z	T	E	K	C	A	P	R	R	RAY
R	W	R	B	C	V	T	X	Z	O	Y	E	J	B	E	E	MARY
A	M	T	K	M	I	O	R	L	H	Q	V	A	X	G	Y	LEE
M	P	T	D	Q	S	D	E	I	U	S	S	B	O	N	C	LARRY
P	R	Y	U	C	E	E	S	X	E	U	F	T	D	Y	H	ED
M	I	L	K	N	H	O	I	I	D	B	M	W	O	V	Q	ADRIAN
A	F	T	X	M	N	U	W	V	D	B	O	C	D	T	N	RICH
Z	S	I	F	Q	P	O	B	E	W	E	G	W	E	J	W	FRED
E	R	I	C	H	H	Y	A	R	D	F	N	J	D	B	Z	ED
B	J	E	G	A	K	I	O	P	X	F	A	X	G	I	J	HOWIE
G	F	S	X	G	U	B	W	J	R	X	I	Y	B	L	N	SSB
L	I	I	J	E	P	J	Q	E	Y	C	R	H	P	F	Z	CW
F	K	M	D	G	L	E	D	K	W	Q	D	H	I	W	B	PACKET
A	E	L	C	Z	E	Q	I	D	F	U	A	F	M	N	P	RTTY

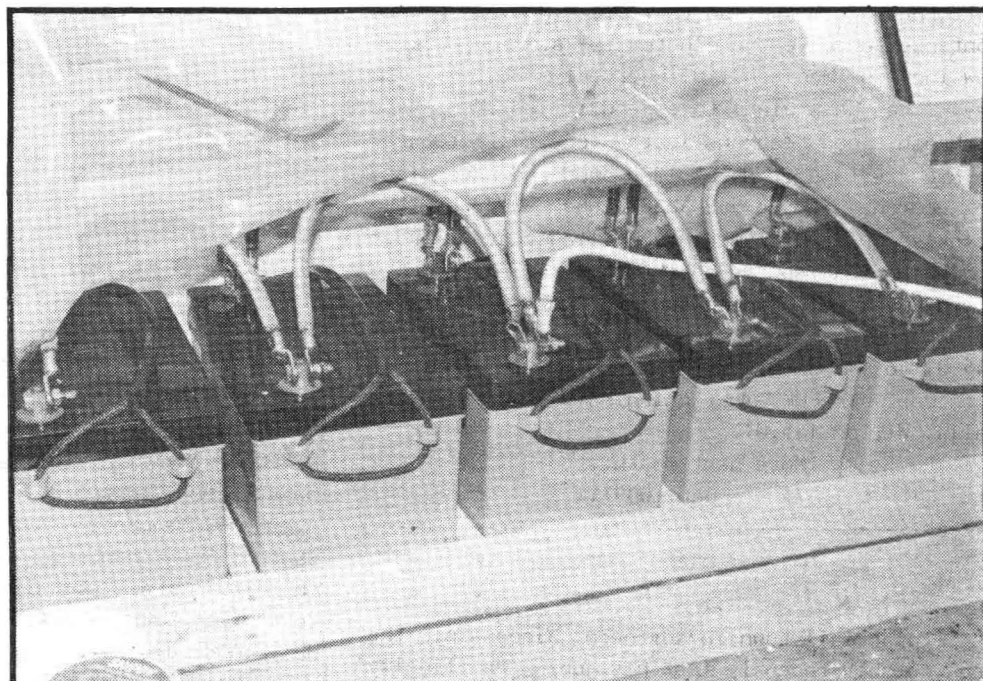
Nice puzzle, huh? Here are the full names and call signs for those folks whose names are in the puzzle:

DICK Hugi, KC9CJ, Manager, Badger Weather Net.
 GREG Garner, WA9W, Manager, Badger Emergency Net.
 RAY Sunderland, K9ANV, Manager, Wisconsin Sideband Net.
 MARY Schram, NS9Q, Manager, North Woods Traffic Net.
 LEE Andreas, N9BDL, Manager, Wisconsin Slow Speed Net.
 LARRY Guthu, Manager, Wisconsin Intrastate Net/Early
 ED Rice, W9NGP, Manager, Wisconsin Intrastate Net/Late
 ADRIAN Apple, KA9FVX, Manager, Wisconsin Novice Net.
 RICH Regent, K9GDF, Wisconsin Section Manager, ARRL
 FRED Wendt, W9ZAG, WI Section Emergency Coordinator
 ED Metzger, W9PRN, Director, Central Division, ARRL
 HOWIE Huntington, K9KM, Vice-Director, Cent. Division ARRL
 And, four popular traffic handling modes: SSB, CW, packet, and RTTY.

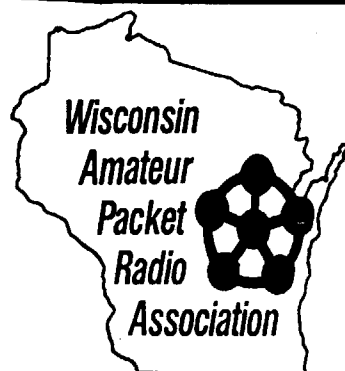
Repeater Profiles-Continued



The 220 MHz repeater is built around a modified Midland transceiver.



Storage batteries connected in parallel provide emergency power. Photos by John Frank, WB9TQG.



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPR)

c/o CARL SCHUMACHER, N9BYS
7740 EVERGREEN TERRACE
BURLINGTON, WI 53106

Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

President's Report - - Dan Bolander, WB9TYT

What's New with the State Networks.....

I have received word from Mike, N9GHZ, that the Medford node is all set to go on line except for the feedline. As soon as the feedline is replaced it will be up and running. This node will be on 145.01 Mhz with the call N9GHZ-1 & alias of WIMED.

The 2 nodes in Burlington, WD9DHI-8 & WD9DHI-9, are still down. This node has suffered a few lightning hits and attempts are being made to get access to the site and either repair or replace the faulty equipment. The -8 node on a 4800 baud UHF frequency was our link to Illinois and we will be reviewing this problem.

The Green Lake area now has their own LAN frequency (144.97 Mhz) with N9BKJ supplying a port on his BBS to this LAN. A digipeater has also been activated near Markesan with plans to upgrade this to a Nord<>Link node in the near future with the possibility of dual-porting it to our 220 Mhz backbone, also in the near future. This would give them access to the outside world.

The new node in Kempster (K9MLD-7 WIAIT) is up and running on its new tower and reports are that it is filling a gap in the coverage North of Wausau.

We have also started up another backbone frequency on 223.44 Mhz. This is the same frequency that the DX cluster is using in SE Wis and NE Ill. This backbone will be moving to another frequency, possibly 223.42, in the very near future and as soon as we put together another 2 port node from 446.100 to 223.44 in Milwaukee to continue to serve the cluster folks. The network now includes Madison, Slinger, Plymouth, & Green Bay. We have plans to expand it to Kempster, Markesan, and Kaukana in the very near future. We are starting it up at 1200 baud and have plans to upgrade it to 9600 baud when we get the wrinkles out. Plymouth and Slinger are 3 port nodes and Madison is an IP switch at the moment. Green Bay is a combination 2 port/Ip switch. Plans are to move the Green Bay node off of 145.01 to 145.05 also.

Bob, KA9EOK is running MSYS v1.05 in Park Falls, WI, on 145.01.

More next month....

73 - - Dan, WB9TYT

The WAPR financial report as of August 30, 1989:

Income	\$225.00
Expenses	\$ 0.00
Cash-on-hand	\$ 183.23
Bank balance	1272.54
Total	\$1455.77

Respectfully submitted:

Carl Schumacher N9BYS, WAPR - Treasurer

After last month's article, I suspect that all of you are accomplished MSYS users. If some aspect(s) of the user commands are still puzzling, contact your local MSYS BBS SYSOP - or drop a note / message to Dan, WB9TYT, and we'll try to answer it promptly.

Any ideas or subjects for future articles may also be directed in that same direction - - to Dan, WB9TYT. As no one person can claim to be truly proficient at ALL things, we (WAPR) try to assign the basic writing of articles to persons who are familiar with the subject, and then edit it so as to make it "user friendly". We hope we have achieved that goal.

As well over 98% of the amateur packets passing thru our bulletin boards are in the protocol of AX.25 (an agreed on set of rules to standardize packet header content, and language for computers, nodes, and digipeaters to understand each other.), we'll limit this month's discussion to those users. (Hang on TCP/IP and KA people - - your turn is coming soon !!)

With the big push by WAPR this year to upgrade or install NODES in an attempt to link the ENTIRE state, we felt a bit of uncomplicated information on NODE use was in order.

Not every one of us is running an 18 element beam on 2M packet with over a Kilowatt of RF being pumped out on every transmission. I have an EXTRA who checks into my BBS several times a day using a handie-talkie running on LOW POWER (he lives about 8-9 miles away) and does a nice job with that signal. If you were to connect on packet with either a BBS or another individual DIRECTLY - you could (obviously) term that a DIRECT CONNECT. (See what I mean - you don't have to be a rocket scientist to "play packet".)

Now, suppose that my friend, the EXTRA, wanted to contact someone on the other side of the city - - his signal would be fairly "no contest" with the interference in the signal path. He could digipeat thru someone about midway across town, assuming the station allowed digi-

peating. A better way would be to use the local NODE. He could either connect to the local NODE and then issue a connect command to his friend on the other side of town (ex.: C WISLG and then C WA9XYZ), or could call his friend VIA the NODE, using it as a digipeater, (ex.: C WA9XYZ V WISLG). Most of the Nodes have sites that have been chosen for elevation, and ease of user and other node connects - - most are running high RF output - - they are the logical choice ! (PLEASE SEE THE COMMANDS BELOW FOR MORE ON THIS)

My friend, the EXTRA with the HT now has the option of connecting to distant areas of the state, and surrounding states also - - all with less than 1 watt out !!

A small discussion of DIGIPEATING vs NODE type of transmission is in order here.

Digipeating is simply an intermediary station listening to you - - storing exactly what it heard (without error correction or checking) and retransmitting it on to its destination, or the next station in line on your "via" request. Little to no error checking takes place and the reliability factor plunges dramatically as the number of digipeating stations in the middle increases. In a 5 station digipeating situation, assuming 90% error free transmissions (and that's being VERY generous !!) at each leg of the trip, the probability that your packet will reach the other end ERROR FREE are less than 35% - - also, it will take you nearly 1-1/2 minutes to get a SINGLE packet through by that method.

Using NODES ("CONNECT") with the AX.25 protocol over the same theoretical path, it has been calculated that the time to make the 5 node jump would be less than 10 seconds !! Also, if there were a "collision" of the packet with another packet at any place on the route, then the station (node) getting the garbled packet would just have to go back to the last node and get a repeat of that packet and the whole show would progress again - - as opposed to the digi method, where the whole show would have to go back to the originating station to have him start the entire process over again. With the NODE, you will get an "ACK" or acknowledgement frame immediately upon receipt of the first packet (first 256 or less bytes - - as determined by your PACLEN setting on your TNC) at the first node, and then you could begin to send the second (etc.) packet (see PACLEN just before this) immediately. Error checking takes place at EACH NODE, and the packet arrives at the destination AS SENT!!!

A few words for the wise from WB9TYT - - he requests that if you are sending LONG DOCUMENTS, FILES, or PROGRAMS in a "ONE-NODE" hop, that you use DIGIPEATING !! Because of the short time needed for the "ONE-NODE" hop, there would be an

In a small town in Northern Wisconsin, the dog catcher recently lost his job. He finally caught the dog.

unusual number of collisions with the "ACKS" flying in one direction and the packets flying in the other if the "CONNECT" method were used.

If, however, you are sending the same lengthy material over a long distance, or if it involves going from a 2-meter port to a 440 MHz port (as an example - or changed frequencies en route) and then the reverse at the next node to get it to your friend at the distant node, PLEASE use the NODE as a NODE, and NOT as a digipeater. There will be a dramatic improvement in the "success rate" for you (see discussion 2 and 3 paragraphs before this current paragraph), and an improvement time-wise over the "digi" method.

The NODE command list:

There are definite commands that you as a user are expected to use when working a node. If you make a mistake along the line, the node will respond with an error message as: WISLG:WB9TYT-7) Invalid Command (CONNECT CQ INFO NODES ROUTES USERS).

All the commands (EXCEPT "CQ") may be given as the first letter of the command, i.e., C = CONNECT, etc.

You have to be in the CONVERSE MODE to issue those commands, except for the INITIAL CONNECT to the FIRST NODE, in which case you must be in COMMAND MODE (rocket scientist stuff ???). A sure way to get there is to issue a CONTROL C and then follow immediately with the "C" for connecting to the node initially, as, CC (space) ALIAS or CALL WITH SSID of the node you want to connect with. After that, simply typing the command letter or word will be just fine.

TO DISCONNECT (it would time out eventually if you forget this) type: CD - a CONTROL C followed immediately with a "D", and then of course, a <CR> or carriage return or "enter".

Connect Command, "C"

To connect to the node, type: C (space) and then either the ALIAS, or the NODE CALL (including the SSID). Ex.: C WISLG or C WB9TYT-7

To connect to a second, and successive, node(s) type: C (space) ALIAS of the new node, or C (space) CALL (WITH SSID) of the new node.

To connect to a user, type: C (space) CALLSIGN of station desired (after you have connected to the node in the area of the party being called). This distant node must be on the FREQUENCY that the party would be on, or vice versa.

To connect to a user via digipeater, type: C (space) CALLSIGN of station you want (space) via (space) CALLSIGN or ALIAS of digipeater. You may use up to 8 digipeaters, each separated by a space. The "VIA" is optional - it may be "VIA", "VI", "V", or omitted entirely.

Ex.: C N9IKD V WA9ABC W9XYZ W1STB

Potential ERROR MESSAGES:

Failure with (Destination did not answer)
Busy from (Destination refused connection)

Node messages when the node is overloaded:
"Node Busy", "Link table full", "Circuit table full", "Host table full".

CQ

A unique way to issue a CQ - sort of like fishing with the line tied to your big toe while you nap, or whatever. The bait is cast out (you issue a CQ at a distant node) - the bait is NOT reeled in (the CQ shows up at the distant node every time someone issues a "U" [users] command to it.). It will appear as "Circuit H: WB9TYT-7 N9IKD) <..>CQ(N9IKD)"

When the fish bites at the other end (WD9ESU has connected to WB9QHD-15 and issues a "U" command and is able to see the CQ issued by N9IKD - and "bites" by issuing a "C N9IKD" - at once, WD9ESU is connected to N9IKD - no need to figure the path as the nodes have it in their route memory.

IMPORTANT - After issuing the CQ to the distant node, N9IKD does NOT hit "return", nor issue another command - If he does, the "CQ" will disappear from the distant node. Just like any good Wisconsin fisherman, N9IKD learns PATIENCE and just leaves the "bait soak" at the distant node, waiting for a nibble.

If N9IKD decides that he has other things to do he may terminate the distant CQ simply by typing a <CR> (carriage return) or issuing another command, like CD (a control C, - immediately followed by a "D", and then <CR> - this would disconnect him from the node(s) allowing him to take out the garbage, or whatever).

A little review (without the fishtale):

N9IKD (in Milwaukee) wants to issue a CQ in Madison.

He types: C WISLG

Reply: Connected to WISLG

He types: C: MAD

Reply: H: WISLG> Connected to MAD:WB9QHD-15

He types: CQ CQ de N9IKD SHOREWOOD WI VIA MAD - PSE CONNECT N9IKD (**NOTE - NO <CR> or Command, else CQ cancelled)

Some pointers about the CQ command - CQ message is limited to 75 characters. No ADDITIONAL digipeaters allowed.

N9IKD's CQ will show up at MAD as typed - AND will show up on the NODES list as a CQ as long as N9IKD stays connected.

For someone monitoring the 145.69 LAN in Milwaukee (but not in the range of N9IKD) notes WISLG sending N9IKD's CQ data. This person does NOT have to connect to the distant node (MAD) to answer the CQ. All he has to do is issue "C N9IKD", and he'll be connected to N9IKD.

Info

Info command, "I", will give you the ALIAS, CALL, LOCATION, and any messages the sysop has placed there.

Parms

Parms command, "P", will give you all the parameters that have been placed in use at the node by the sysop. They are purely informational and the user need NOT be concerned with this command.

Users

The users command, "U", will return a list of all current users, and whether they are up-link, downlink, CQing, etc.

Nodes

The nodes command, "N", may be accessed by typing N followed by a <CR>. This will spew out a screen full (or more) of neatly arranged, in alphabetical order, nodes that your node has heard or worked. The list has ALIASES as the alphabetically arranged portion, but also displays the node's callsign with the SSID.

By typing "N (space) *" and then a <CR>, you will get an enhanced version, showing all the "hidden nodes" as well. The "hidden nodes" will appear having a "#" in front of them. These are usually high speed (4800 - 9600 baud) nodes which make up the "backbone" of a network. Routing through them is automatic, but the user may access them just as any other node by connecting to them after the initial connect to LAN (Local Area Network) node.

Of interest, maps of the nodes of Wisconsin, and surrounding states are available on some of the BBSs in the state. I know that Dan, WB9TYT, and I (KC9BK) have them in our files here in Milwaukee. You might inquire of your local BBS if he has them available for your downloading and future reference. A recent issue of BSSS carried the WAPR nodes and the routes between them as well as the frequencies. PLEASE refer to last month's issue of BSSS as to HOW TO DOWNLOAD THEM for your personal use.

A note on the lengthy nodes list you will get - the length of this may be set by the operator of the NODE. It is usually kept long as it allows the user to SEE which are the other nodes in his opart of the world - all that you see displayed have been heard or worked by your node. There may be some rare ones there if the band is "open".

Another use for the long node list is for the benefit of the TCP/IP user - but that is another article (at least) away.

Routes (Available on NORD<>LINK or NET/ROM [v1.3] nodes)

The route command, "R", will give you the current route in use by the node. Each will have a wealth of user-usable info attached to each call.

A typical return from the command "R" at your favorite node might look like the one for WISLG:

WISLG:WB9TYT-7) Routes:

```
> 1 WB9TYT-8 250 75
> 1 WB9TYT-9 250 79
> 0 K9PIQ 192 1
> 0 N9JR-2 192-1
> 0 WB9OWN-4 192 1
```

The ">" shows which routes are active. The "1" or the "0" tells whether the route is via 45232 (or interconnected) in which case the "1" would be present as in the first two routes above (all three WB9TYT TNCs are connected via a diode matrix at the Slinger site proper), or if it was a radio connect, shown by the "0", as in the case

(continued on page 18)

Yellow Thunder Amateur Radio Club



K90DK
WB9FDZ

Harry Westlund, K9EHJ,
Secretary
720 Jefferson Street
Baraboo, WI 53913

The next meeting of the Yellow Thunder Amateur Radio Club, will be held on Tuesday, October 17, 1989 in room 25 of the Baraboo Civic Center. The meeting will start at 7:30 p.m.

The September 18, 1989 meeting of the Yellow Thunder Amateur Radio Club, Inc. was called to order at 7:58 p.m. by the Vice President, Art Kleefisch, W9WSS.

The following members were present:

Harry Westlund, K9EHJ	Baraboo
Harold Reif, KA9YQP	Baraboo
Harry Mayland, K9FFT	Baraboo
Jim Decker, WB9UQT	Baraboo
Art Kleefisch, W9WSS	Baraboo

The minutes of the July meeting were accepted as published in The Badger State Smoke Signals.

There was no August meeting, hence no minutes for approval.

The Treasurers report was given by the Treasurer, James Decker, WB9UQT. The operating balance was 343.10 and a total balance in all accounts of 376.67.

The secretary had no communication to report. There was no old business for discussion.

James Decker, WB9UQT announced the progress on getting up a repeater for 220 MHz and 440MHz. The unit is to be installed at North Freedom and will be used for packet.

With no further business the meeting switched an open discussion of various types of interference found in communications.

After everyone ran out of words, the buck nite drawing was held and won by Harry Mayland, K9FFT. The prize was \$3.00.

Motion of adjournment was made by Harold Reif, KA9YQP and seconded by James Decker, WB9UQT. The motion passed, and the meeting was thereby adjourned at 9:09 p.m.

Respectfully submitted,

Harry Westlund, K9EHJ, Secretary

YTARC BIRTHDAZE

Paul Amend KA90BP October 10

SENTENCE SERMON

No true civilization can be expected permanently to continue which is not based on the great principles of Christianity. --Tryon Edwards

WAPR (continued from page 17)
of the last three above.

Then the call with the SSID of the node is shown (the aliases will appear in the Nodes list (obtained with the "N" command)).

The number following the call is the RELIABILITY or QUALITY index. Assuming that an arbitrary number of 256 is perfect transmission, this number (immediately following the call) DIVIDED by the number 256, and then multiplied by 100 to give you a % will show you the percentage of packets that would theoretically be "perfect" if transmitted by that route. Ex.: for the first route -- WB9TYT-8, the # is 250. $250 / 256 = 0.98$ $0.98 \times 100 = 98\%$ of the packets will be perfect by this route. Ex.: For the last route listed -- WB9OWN-1, the # is 192. $192 / 256 = 0.75$ $0.75 \times 100 = 75\%$ of the packets by this route will be "perfect", or you might expect a few retries.

This number of RELIABILITY or QUALITY changes with the band conditions and is constantly updated by the node automatically (hourly) as it polls the other nodes. For VHF work at 1200 baud, a # above 100 might prove marginal-to-satisfactory, with the better results obtained with a # above 120.

A RELIABILITY or QUALITY index of "0" shows that the route has UNKNOWN QUALITY -- or it is a loopback route and not to be used.

The last number in the sequence is the obsolescence count (0 = locked route). Higher numbers = higher activity.

If there is an exclamation point after the series of numbers, "!", it means that the connection is locked into place by the SYSOP. This might be found at nodes such as WIKEC, or WISHE (which are familiar to me) and MQTA / MQT in the Madison / Marquette areas.

Another use of the routes command is to find out HOW to get to a distant NODE that shows up on the "N" Nodes list.

Simply type: R (space) CALLSIGN or ALIAS, (the CALL-with-SSID, or the ALIAS of the NODE you want to get to). The NODE you are connected to will query its route table and generate the path it heard or worked the distant node on so that

you may then try to duplicate the same route with CONNECT commands, or VIA in the connect commands.

There you have it -- with the above, you should be well armed to do battle with the best in trying to get out of your confined world with the aid of NODES. Your questions and / or comments would be welcomed by Dan, WB9TYT in either a postal note, or a packet message to him at WB9TYT @ WB9TYT.

I might remind you to check with your local Node operator -- Most of the nodes in the State of Wisconsin and neighboring have changed or are in the process of changing their ALIAS calls to include the STATE designator as the first two letters of their call (ALIAS), as SLG has become WISLG, etc. If you just WATCH the screen when the different stations connect to the NODE in your area, you'll be able to get that ALIAS. Also, WAPR has been busy with NEW NODES in the state. A full report of that should be available for the next issue of BSSS, erection weather permitting, and we should have a new MAP available in the near future. WATCH BSSS FOR FUTURE DEVELOPMENTS FROM WAPR !!!

I must remind you that NET/ROM (if you can find it above) is a registered trademark of the SOFTWARE 2000, INC. people. TheNet and NORD<<LINK are associated with amateur programs courtesy of NORD<<LINK, a German packet radio development group. Their material was used extensively in putting this together so you, the user, might understand their product, and use it more fully.

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Then there was the OM who wanted some caviar, so he chartered a roe boat.

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